

PROTOKOLL

FOR DEN 36. SESJON I DEN BLANDETE NORSK-RUSSISKE FISKERIKOMMISSJON

1. Åpning av sesjonen

Den 36. sesjon i Den blandete norsk-russiske fiskerikommisjon ble avholdt i St Petersburg 22.-26. oktober 2007. Den norske delegasjon ble ledet av J. Krog, representant for Kongeriket Norges regjering i Den blandete norsk-russiske fiskerikommisjon, departementsråd i Det kgl. Fiskeri- og kystdepartement. Den russiske delegasjon ble ledet av P.A. Jefanov, stedfortredende representant for Den russiske føderasjons regjering i Den blandete norsk-russiske fiskerikommisjon, nestleder for Den russiske føderasjons Føderale fiskeribyrå. Leder av Den russiske føderasjons Statlige fiskerikomite A.A. Krainiy deltok i arbeidet i den 36. sesjon i Den blandete norsk-russiske fiskerikommisjon.

Partenes delegasjoner fremgår av Vedlegg 1.

2. Godkjenning av dagsorden

Partene godkjente dagsorden, jf Vedlegg 2.

3. Arbeidsgrupper

I samsvar med § 3 i Forretningsordenen for Den blandete norsk-russiske fiskerikommisjon oppnevnte partene felles arbeidsgrupper for:

- statistikk
- kontroll
- sel i det nordøstlige Atlanterhavet
- forskningssamarbeid
- protokoll

4. Utveksling av fangststatistikk for 2006 og hittil i 2007

Partene utvekslet statistikk over fisket i Barentshavet og Norskehavet for 2006 og hittil i 2007, inkludert data om norske og russiske fartøyers landinger i andre lands havner i den nevnte perioden, på omforente skjemaer og diskuterte den fremlagte informasjonen.

Den russiske part bemerket at den russiske fangststatistikken som ble overlevert viser at det ikke har funnet sted noe overfiske av torsk og hyse i Barentshavet og Norskehavet i 2006.

Den norske part informerte om at en fra norsk side i mars 2007 har overlevert rapport om uregistrert uttak av torsk og hyse i Barentshavet og Norskehavet i 2006 til ICES AFWG. Den

russiske part meddelte at den fremla for ICES AFWG i 2007 en detaljert analyse av mulig overfiske, inkludert landinger i havner i Norge, Russland og tredjeland i 2006.

Med begge parters erkjennelse om at det eksisterer et problem med uregistrert uttak av torsk og hyse i Barentshavet og Norskehavet, er det et prioritert mål å bruke alle mulige virkemidler for å avdekke og forhindre ulovlige fangster.

Partene var enig om, at i samsvar med pkt 7 i protokoll fra 15.10.07 fra Det permanente utvalg for forvaltnings- og kontrollspørsmål i fiskerisektoren, har den norske part påtatt seg å utarbeide forslag til nytt format for oversendelse av statistisk materiale om russiske førstegangslandinger i Norge.

Partene er enig om å endre form og benevnelse på tabell VI til "Fangst fra flaggstatens fartøy ved fiske i ICES-område I, IIa og IIb, førstegangslandinger i alle andre land enn flaggstaten. Fangst i tonn rundvekt"

Partene var enige om at tabell VI skal inneholde informasjon om førstegangslandinger i havner. Partene viste med tilfredshet til at NEAFC's havnestatsregime er innført fra 01.05.07, noe som vil gi mulighet til å øke påliteligheten i informasjonen om førstegangslandinger.

Den russiske part uttrykte ønske om å få informasjon fra den norske part om landinger av russiske fiskeprodukter i Norge som videresendes til tredjeland. Den norske part bemerket at all fangst landet i Norge blir registrert som førstegangslandinger og rapportert til flaggstaten. Den norske part vil gjøre det som er mulig for å fremskaffe informasjonen som er etterspurt fra russisk side.

Partene var enige om å samarbeide om å fremskaffe opplysninger og å utveksle data om landinger av fiskeprodukter i andre land.

Den norske part viste til at det i 2007 månedlig er oversendt til den russiske part akkumulert oversikt over russiske landinger i Norge, og bekreftet ønsket om også i fremtiden å få opplysninger om norske fartøys landinger i Russland.

Partene var enig om det formålstjenlige i å utveksle statistikk over flaggstatens landinger i egne havner. Partene ble enig om å gi Det permanente utvalg for forvaltnings- og kontrollspørsmål i fiskerisektoren i oppdrag å utarbeide et opplegg for utveksling av slik informasjon.

Partene var enige om, etter anmodning, å utveksle statistiske fangstopplysninger for kvoteregulerte arter av akvatiske bioressurser.

Partene fremla data om forskningsfangst fordelt på ICES-områder I og II, og var enige om at dataene om forskningsfangst i tabell IV også i fremtiden skal spesifiseres på ICES-områdene, på samme måte som for kommersiell fangst. Partene var enige om å videreføre den regelmessige månedlige utvekslingen av fangststatistikk for fisk og reker fordelt på ICES-område I og II.

Den norske part opplyste at det i Norge pågår et omfattende arbeid for å beregne omfanget av fritids- og turistfiske i norske farvann. Resultatet av arbeidet vil bli meddelt den russiske part.

Partene var enige om å utveksle informasjon om fritids- og turistfiske i sine respektive farvann på årlig basis.

5. Regulering av fisket etter torsk og hyse i 2008

5.1 Fastsettelse av totalkvoter og fordeling av kvoter

Partene var enige om at det er en usikkerhet i bestandsanslaget for norsk arktisk torsk, og understreket sterkt behovet for økt forskningsinnsats i hele bestandens utbredelsesområde for å få mer eksakte resultater. Partene viste til at Det internasjonale råd for havforskning (ICES) også har påpekt at manglende toktdekning svekker troverdigheten av den vitenskapelige rådgivning.

Partene var enige om at det er behov for å videreutvikle omforente langsiktige strategier for forvaltning av fellesbestandene i Barentshavet og Norskehavet. Partene understreket i denne sammenheng at "Grunnleggende prinsipper og kriterier for langsiktig, bærekraftig forvaltning av levende marine ressurser i Barentshavet og Norskehavet" vedtatt på 31. sesjon er en god basis for forvaltningsbeslutninger. Partene bekreftet at forvaltningsregelen skal legges til grunn ved fremtidig fastsettelse av TAC.

Partene diskuterte problemene med å beregne nivå på totalt uttak av torsk og hyse i Barentshavet. Analyser indikerer imidlertid en nedgang i omfang av overfiske i 2006.

Partene har med tilfredshet konstatert indikasjoner på at omfanget av overfiske er redusert i 2007, blant annet som følge av innføring av NEAFC's havnestsregime fra 01.05.07.

På denne bakgrunn ba partene forskerne å beregne effekt på TAC for torsk i 2008 ved alternative nivå for totalt uttak i 2007, inkl. overfiske. Forskernes beregninger fremkommer i vedlegg 14.

Partene var enige om å fastsette TAC for torsk i henhold til forvaltningsstrategien og beslutningsregelen som ble vedtatt på 33. sesjon. Etter en totalvurdering av situasjonen i 2007 kom partene fram til at TAC for 2008 ihht. forvaltningsregelen kunne fastsettes til 430.000 tonn.

Partene var enig om å fortsette bestrebelsene på å komme fram til et best mulig anslag over faktisk uttak av torsk og hyse i Barentshavet og Norskehavet i 2007.

Etter oppdrag fra 35. sesjon har forskerne analysert beslutningsregelen for hyse. Basert på forskernes råd legger Partene følgende modifiserte (ett-årige) regel for fangstregulering til grunn;

- TAC for neste år skal fastsettes på et nivå som er i samsvar med F_{pa} .
- TAC kan ikke endres med mer enn +/- 25% av TAC for foregående år.
- Dersom gytebestanden faller under B_{pa} skal fastsettelse av TAC baseres på en fiskedødelighet som reduseres lineært fra F_{pa} når gytebestanden er lik B_{pa} , til $F=0$ når gytebestanden er lik null. Ved gytebestandsnivå under B_{pa} i ett eller flere av årene som inngår i beregningene (inneværende år og neste år) skal fastsettelse av TAC ikke begrenses av +/- 25%-regelen.

Fordi ACFM ikke har funnet å kunne godkjenne arbeidsgruppens bestandsvurdering av hyse for inneværende år, var partene enig om å fastsette TAC for hyse på ad hoc basis for 2008.

Partene fastsatte totalkvoter for torsk og hyse for 2008 samt fordeling av disse på Norge, Russland, tredjeland, og avsetninger av kvanta til forsknings- og forvaltningsformål, jf vedlegg 3 og vedlegg 10. Fordeling av tredjelandskvoten på soner for 2008 er gjengitt i Vedlegg 4.

Partene ble enige om gjensidige kvoter av torsk og hyse i hverandres økonomiske soner, jfr. Vedlegg 5.

Partene var enige om å informere hverandre om kvoter som tildeles tredjeland av fellesbestander, herunder om de kvanta som tildeles innenfor kommersielle prosjekter.

Partene var enige om å konsultere hverandre om eventuelle overføringer av kvoter tildelt tredjeland av Norge eller Russland til den annen parts sone.

5.2 Andre tiltak for regulering av fisket

Partene var enige om at det for fremtiden skal være tilstrekkelig for å få tillatelse til å bruke nyutviklede sorteringsristsystemer i farvann under den annen parts jurisdiksjon, at de aktuelle spesifikasjoner for disse er godkjent i Det permanente utvalg med påfølgende rapportering til Den blandete norsk-russiske fiskerikommisjon.

Partene var enige om å videreføre utveksling av informasjon om det biologiske grunnlagsmateriale for stengning og åpning av fiskefelt på omforent skjema utarbeidet av Det permanente utvalg.

5.2.1 Tekniske reguleringer

Partene mener at det er et langsiktig mål å innføre felles tekniske reguleringstiltak, herunder ens maskevidde og ens minstemål for hele utbredelsesområdet for torsk og hyse.

Tekniske reguleringstiltak fremgår av vedlegg 7.

6. Regulering av fisket etter lodde i 2008

Partene bekreftet den tidligere vedtatte beskatningsstrategien for lodde der TAC ikke settes høyere enn at, med 95 % sannsynlighet, minst 200.000 tonn lodde får anledning til å gyte.

Partene vurderte vitenskapelige data om loddebestanden, som vitnet om et lavt nivå i gytebestanden på grunn av naturlig fluktuasjon i bestanden.

Partene besluttet ikke å åpne for kommersielt loddefiske i 2008, men ble enige om et begrenset uttak av lodde til forskningsformål for å forbedre mengdemålingsmetodikken.

7. Spørsmål vedrørende forvaltning av norsk vårgytende sild i 2008

Partene stadfestet at deres mål er å beholde et multilateralt regime for forvaltning av norsk vårgytende sild i 2008.

8. Regulering av fisket etter andre fiskeslag i 2008

Kvoter på andre bestander og tekniske reguleringstiltak fremgår av Vedlegg 6 og 7.

Partene var enige om at beskatning av fiskebestander som ikke er kvoteregulert, bare kan skje som bifangst ved fiske av kvoteregulerte fiskeslag. Partene var enige om gjensidige bifangstkvoter i hverandres økonomiske soner. Disse bifangstkvotene kan bli økt dersom hensynet til den praktiske avvikling av fisket tilsier det. Partene vil så snart som mulig behandle anmodninger om å øke bifangstkvotene.

8.1.1 Bestandstilstand for blåkveite

Partene var enige om å opprettholde forbudet om direkte fiske etter blåkveite i 2008.

Den norske part opplyste at det vil bli gjennomført et begrenset kystfiske i tradisjonelt omfang med konvensjonelle redskaper i områder under norsk jurisdiksjon.

Den russiske part orienterte om at det vil bli gjennomført forsøksfiske etter blåkveite ved bruk av ulike fiskeredskaper i kystsonen av Barentshavet i områder under russisk jurisdiksjon.

Tekniske reguleringstiltak fremgår av Vedlegg 7.

8.1.2 Program for felles norsk-russisk forskning på blåkveite

Partene videreførte et felles treårig forskningsprogram for 2007 – 2009 utarbeidet av norske og russiske forskere, jf vedlegg 11.

8.1.3 Om felles tiltak for regulering av blåkveite som grenseoverskridende bestand

Basert på data fra det treårige felles forskningsprogrammet for 2002-2004, erkjente partene at blåkveitebestanden er utbredt i hele Barentshavet.

Partene var enige om, så snart som mulig, å opprette en gruppe av forvaltere, økonomer og forskere til å utrede prinsipper som kan danne grunnlag for fordelingsnøkkel i forbindelse med felles reguleringstiltak for fiske etter blåkveite, samt utarbeide forslag til TAC.

Til dette arbeidet skal gruppen benytte følgende grunnlag:

1. Rapport fra møtet i arbeidsgruppen i Kirkenes 4.-6. Oktober 2006 vedr utarbeidelse av forslag til felles reguleringstiltak for bestanden av blåkveite

2. Rapport fra det felles norsk-russiske treårige blåkveiteprogram 2007-2009

Gruppen skal begynne sitt arbeid i 2008 og levere en årlig rapport til fiskerikommisjonen. Den endelige rapporten skal leveres i 2010.

8.2 Uer

Partene drøftet bestandssituasjonen for uer (*Sebastes mentella*, *Sebastes marinus*), og konstaterte at bestanden av *Sebastes mentella* synes å være i en viss positiv utvikling. Partene var enige om at det er viktig å fortsette samme reguleringstiltak som for 2007 til disse bestandene igjen er oppe på akseptabelt reproduktivt nivå.

Tillatt bifangstprosent og tekniske reguleringstiltak fremgår av Vedlegg 6 og 7.

8.3 Sei

Kvoter og tekniske reguleringstiltak fremgår av Vedlegg 6 og 7.

8.3.1 Bestandstilstand for sei

Partene viste til at en målrettet og rasjonell forvaltning av seibestanden har medført stabilisering av seibestanden på et høyt bestandsnivå.

Den russiske part informerte om at den vil ta inntil 10 000 tonn under et direktefiske etter sei i russisk økonomisk sone. Bifangst av sei under fisket etter torsk og hyse i russisk økonomisk sone skal begrenses til 49 % av total vekt i hver landing. Den norske part tok dette til etterretning.

8.3.2 Om grenseoverskridende egenskaper ved bestanden av sei i Barentshavet

Den russiske part fremla data om fordeling av sei i hele Barentshavet, samt informerte den norske part om sin intensjon om å vurdere antall seiyngel i russisk økonomisk sone.

9. Kamtsjatkakrabbe (*Paralithodes camtschaticus*) i Barentshavet i 2008

Partene bekreftet den separate forvaltningen av kamtsjatkakrabbe i deres økonomiske soner.

Den russiske part informerte den norske part om de tekniske reguleringstiltakene for fangst av kamtsjatkakrabbe i RØS og om en mulig russisk kvote for 2008 på 3 200 000 individer.

Den norske part orienterte om stortingsmeldingen som Regjeringen har oversendt Stortinget for behandling. Når Stortinget har behandlet meldingen vil det bli fastsatt forvaltningstiltak for fangst av kamtsjatkakrabbe i NØS og Norges kvote for 2008. Norge vil informere den russiske part om dette senere.

Partene ble enige om også heretter å informere hverandre om sine tekniske reguleringsiltak under de årlige sesjoner.

Partene utvekslet informasjon om resultatene av forskning på kamtsjatkakrabbe (*Paralithodes camtschaticus*) i Barentshavet.

Resultatene av det treårige forskningsprogrammet på kamtsjatkakrabbe i Barentshavet (2005-2007) vil bli lagt fram for kommisjonen i 2008.

Partene konstaterte at det fortsatt er manglende kunnskap om det gjensidige forholdet mellom krabben og øvrige arter i økosystemet i Barentshavet, og anbefalte forskerne fra begge land å videreføre forskningen på dette området.

Partene var enige om at resultater av felles forskningsinnsats på bestandsvurderinger, migrasjon og krabbens innvirkning på økosystemet fortsatt drøftes på de årlige sesjonene.

Partene var enige om å holde et felles symposium om kamtsjatkakrabben i Barentshavet, jf punkt 13.

10. Regulering av fisket etter reker i 2008

Partene tok til etterretning en felles rapport fra norske og russiske forskere vedrørende bestandssituasjonen av reker i Barentshavet.

Partene var enige om at stenging av felt ved rekefiske skal gjennomføres på grunnlag av data om bifangst av blåkveite, torsk, hyse og uer.

Kvoter og tekniske reguleringsiltak fremgår av Vedlegg 6 og 7.

Partene ba forskerne om å se på mulighetene for videre utvikling av seleksjonsteknologi i fiskeredskap med sikte på redusert innblanding av ueryngel i rekefisket.

11. Regulering av selfangsten i 2008

Partene konstaterte at kvoteuttaket på grønlandssel i 2007 fortsatt var på et lavt nivå.

Partene var enige om at antall sel i Østisen og Vesterisen har en innvirkning på de kommersielle fiskebestandene. Partene har derfor til hensikt å gjennomføre et felles forskningsprogram med formål å avklare grønlandsselens økologiske rolle i Barentshavet.

I denne situasjonen vil partene bestrebe seg på å legge forholdene til rette for russiske og norske kommersielle fangstinteresser, noe som gir mulighet til å iverksette felles prosjekter med sikte på en økning i uttaket av sel i Østisen og Vesterisen, og å skape lønnsomhet i fangsten. Status og fremtidsutsikter for selfangsten skal i 2008 drøftes av representanter for næring (fangstledd så vel som produksjon), produktutvikling, forvaltning og forskning i en internasjonal konferanse i Tromsø.

Tilgjengelige data tyder på at klappmyssbestanden i Vesterisen er på et så lavt nivå at fangststoppen som ble innført fra sesongen 2007 må opprettholdes.

Partene fastsetter TAC for 2008 basert på rådgivning fra ICES for bestandene i Vesterisen. Russiske undersøkelser indikerer en mulig lavere ungeproduksjon enn den som ligger til grunn for ICES' anbefaling for grønlandssel i Kvitsjøen. Derfor settes TAC for denne bestanden unntaksvis lavere enn rådgivningen fra ICES.

Partene konstaterte at ICES fortsatt arbeider med å fastsette biologiske referansepunkter for forvaltning av bestandene av grønlandssel og klappmyss, noe som vil gjøre det mulig å utarbeide en forvaltningsstrategi for selbestandene.

Kvoter og reguleringstiltak, herunder fangst for vitenskapelige formål, fremgår av Vedlegg 6 og 8.

12 Forvaltningssamarbeid

Partene vil fortsette samarbeidet mellom de to lands fiskerimyndigheter for ytterligere å effektivisere ressurskontrollen og reguleringen av fisket.

Partene var enige om at alle norsk-russiske fellesprosjekter, også forskningsprosjekter, i forbindelse med utnyttelse av fellesbestander i Barentshavet og Norskehavet, skal behandles av Den blandete norsk-russiske fiskerikommisjon, og godkjennes av Det norske fiskeri- og kystdepartement og Den russiske føderasjons statlige fiskerikomiteé. Hver part forplikter seg til å informere den annen part om hvilke kvoter som tildeles og mottas innenfor rammene av slike prosjekter, og om de kvanta fisk som landes i henhold til disse kvotene.

12.1 Om implementering av tiltak vedtatt under 35. sesjon vedrørende kontroll

Partene oppsummerte de tiltak som er gjennomført i 2007:

- Løpende utveksling av informasjon om satellittsporing i Barentshavet og Norskehavet (ICES I og II). Prøveprosjektet ble påbegynt 1. oktober 2006 og har fortsatt gjennom 2007. De tekniske spørsmål ved denne utvekslingen er løst.
- Utveksling av informasjon av kvoter på fartøynivå. Fra 1. september 2006 har en foretatt månedlig gjensidig utveksling på permanent basis.
- Harmonisert kontrollmetodikk for kontroll på sjø og på land ble utarbeidet på møtet i Det permanente utvalg i oktober 2006.
- Partene har samarbeidet i NEAFC for å etablere et omforent regime for havnestatskontroll vedrørende fiskeressursene i NEAFC's konvensjonsområde.
- Partene har samarbeidet innen gjennomføring av analyser av overfiske av torsk og hyse i Barentshavet og Norskehavet. Partene konstaterte at den norsk-russiske ekspertgruppen for analyse av informasjon om overfiske av torske- og hysekvotene i Barentshavet og Norskehavet har avholdt to møter i 2007. Resultatet av denne

gruppens arbeid er fremlagt for Den blandete norsk-russiske fiskerikommisjon.

- Samarbeide om gjennomføring av inspeksjoner av fiskefartøyer i Smutthullet og det tilstøtende området i Barentshavet under inspeksjon av fartøyer med egne staters flagg. I det tilstøtende området har det i mars og mai vært gjennomført samarbeid mellom Kystvakten og grenseadministrasjonen i FSB i Murmansk fylke. Den norske kystvakten og FSB har 20. september signert retningslinjer for samarbeide ved gjennomføring av inspeksjoner av fiskefartøyer i det tilstøtende området i Barentshavet og informasjonsutveksling, se vedlegg 15.

Partene konstaterte at følgende omforente tiltak ikke har blitt gjennomført:

- Den norske part har ikke fremlagt resultater for det arbeidet som er gjort for å fastslå omfanget av sports- og turistfiske i norske farvann.
- Løpende informasjonsutveksling av omlasting til havs og landinger i 3. lands havner av fisk som utgjør fellesbestander i Barentshavet og Norskehavet (ICES I og II) på fartøynivå. Den norske part er klar til å gjennomføre en slik utveksling. Den russiske part er klar til å igangsette slik utveksling etter at den russiske part har foretatt de nødvendige interne prosedyrer.
- Analysegruppen som skal foreta sammenstilling av informasjon på fartøynivå for å avdekke mulige brudd på fiskerilovgivningen har ikke hatt noen møter. Det er planlagt et møte i analysegruppen i Murmansk i uke 44 i år. Gruppen består av representanter på norsk side fra Fiskeridirektoratet og Kystvakten og på russisk side Rosselkhoznadzor i Murmansk fylke og FSBs grenseadministrasjon i Murmansk fylke.
- Det har ikke vært avholdt møter i underutvalget under Det permanente utvalg i 2007. Underutvalget har ikke kunne gjennomføre sitt arbeid som planlagt da representanter for alle relevante russiske myndigheter ikke har deltatt og det ikke er oppnevnt leder for underutvalget på russisk side.
- Det er ikke gjennomført samarbeid om kontroll av fisket i Smutthullet mellom Kystvakten og Rosselkhoznadzor i Murmansk fylke.

12.2 Rapport fra Det permanente utvalg for forvaltnings- og kontrollspørsmål på fiskerisektoren

Partene har gjennomgått rapporten fra Det permanente utvalg om det arbeidet som er gjort, og har funnet det tilfredsstillende. Protokollen fra møtet i Det permanente utvalg i Murmansk 3.-7. september og 15. oktober 2007 vedlegges, jfr. Vedlegg 9.

Partene vil gjennomføre de tiltak som er foreslått i nevnte protokoll, se også pkt 12.6. nedenfor.

12.3 Regler for langsiktig, bærekraftig forvaltning av levende marine ressurser i Barentshavet og Norskehavet

"The Basic Document Working Group" (BDWG) leverte en rapport (Vedlegg 13) med beskrivelse av arbeidet siden 35. sesjon. Rapporten inneholdt følgende punkter:

1. Videre evaluering av beslutningsregelen for NEA torsk
2. Videre evaluering av beslutningsregelen for NEA hyse
3. Presentasjon av en beslutningsregel på NEA sei og evaluering av denne
4. Rapportering av status i prosjektet for optimal høsting av de kommersielle hovedbestandene i Barentshavet og Norskehavet med hensyn til alle økosystemelementer som er tilgjengelige for undersøkelser.

Når det gjelder punkt 1 refererte BDWG til relevante analyser gjort av ICES i 2007, og konkluderte med at sannsynligheten for at gytebestanden skal falle under B_{lim} er lav og innenfor et sannsynlig område for implementeringsfeil. BDWG konkluderer med at beslutningsregelen må anses å være i tråd med føre-var-tilnærmingen dersom ikke implementeringsfeilen overstiger det nivået som har vært observert til nå.

Når det gjelder punkt 2 refererte BDWG til relevante analyser gjort av ICES i 2007, og anbefaler at Kommisjonen fra og med sin 36. sesjon erstatter en 3-års-regel med en 1-års-regel.

Når det gjelder punkt 3 presenterer BDWG en beslutningsregel for sei foreslått av norske forvaltningsmyndigheter og evaluert av ICES i 2007.

Når det gjelder punkt 4 rapporterte "The Basic Document Working Group" status i prosjektet for optimal høsting av de kommersielle hovedbestandene i Barentshavet og Norskehavet med hensyn til alle økosystemelementer som er tilgjengelige for undersøkelser (Vedlegg 13).

12.4 Erfaring med Memorandum om samarbeidsordninger mellom partenes kontrollmyndigheter

Partene var enige om at Memorandumet tjener som et godt grunnlag for å bedre kontrollen og samarbeidet, og påpekte at det er nødvendig å videreføre arbeidet i samsvar med bestemmelsene i det.

Partene er enige om at enkelte punkter i Memorandumet er foreldet og at det er nødvendig å foreta endringer og tillegg.

I forbindelse med opprettelse av en statlig fiskerikomité for Den russiske føderasjon ga partene Det permanente utvalg i oppdrag å fortsette videre behandling av denne sak på sitt neste møte.

12.5 Regler om partenes utstedelse av lisenser for fiske og håndhevelse av fiskeribestemmelsene

Partene utvekslet utkast til protokoll som fastsetter en forenklet ordning for utstedelse av lisenser for fangst (fiske) av marine bioressurser. Partene uttrykte at de har til hensikt å undertegne en protokoll etter at hver av partene har gjennomført de interne prosedyrer.

Inntil en ny ordning blir innført lar partene den eksisterende ordning for utstedelse av lisenser til partenes fiskefartøy gjelde.

12.6 Kontrolltiltak for fiske i Barentshavet og Norskehavet i 2008

1. Partene orienterte hverandre om kontrollaktiviteten i sine farvann i 2007 med særlig vekt på omlasting og kvotekontroll. Man konstaterte at arbeidet med problemene med ulovlig fiske og omlasting i Barentshavet og Norskehavet viser en positiv utvikling, men problemene er ennå ikke løst.
2. Partene var enige om å iverksette utveksling av full og løpende informasjon om omlasting til havs eller landing i 3. land av arter som utgjør fellesbestander i Barentshavet og Norskehavet (ICES I og II), på fartøynivå, etter at den russiske part har foretatt nødvendige interne prosedyrer.
3. Partene drøftet resultatene fra pilotprosjektet med utveksling av data fra satellittsporing av fiskefartøy i Barentshavet og Norskehavet (ICES I OG II) og er enige om at alle oppgaver i pilotprosjektet er fullt ut løst.

Partene konstaterte at arbeidsgruppen som ble etablert ihht beslutning fra 35. sesjon i kommisjonen (pkt 12.6) under hensyntagen til resultatene fra pilotprosjektet har foretatt revurdering av "Agreed Records of Conclusions between Norway and Russia on Issues related to Satellite Based Vessel Monitoring Systems" og at relevante endringer og tillegg er foretatt i denne.

Den russiske part informerte den norske part om at interne prosedyrer for godkjenning av nevnte protokoll er avsluttet og overleverte til den norske part et eksemplar av dette dokument med de russiske endringsforslagene. Den norske part vil innen utgangen av 2007 vurdere den overleverte versjonen av "Agreed Records of Conclusions between Norway and Russia on Issues related to Satellite Based Vessel Monitoring Systems" og dersom man ikke har merknader til denne foreslå et tidspunkt for undertegning av dokumentet.

Inntil slik avtale er trådt i kraft er partene enige om å videreføre pilotprosjektet med løpende utveksling av informasjon om satellittsporing i Barentshavet og Norskehavet (ICES I og II).

4. Den norske part viste til den internasjonale utviklingen innen elektronisk rapportering og foreslo å nedsette en ekspertgruppe som skal se på mulig samarbeid mellom partene når det gjelder etablering av elektronisk rapportering fra fiskefartøy. Den russiske part meddelte at man på det nåværende tidspunkt ikke har lovgrunnlag for implementering av et elektronisk rapporteringssystem, og at et slikt system nå er under utarbeidelse. Den russiske part mener at gjennomføring av møte i en ekspertgruppe for anvendelse av et elektronisk rapporteringssystem som er utarbeidet i Norge, er mulig etter at relevante utviklingsarbeider er gjennomført og nødvendige lover og regler er vedtatt i Russland.

5. Partene var enige om å videreføre samarbeidet i NEAFC med sikte på videreutvikling av regimet for havnestatskontroll vedrørende fiskeressursene i NEAFCs konvensjonsområde.
6. Partene var enige om å samarbeide om gjennomføring av inspeksjoner av fiskefartøyer i Smutthullet og det tilstøtende området i Barentshavet under inspeksjon av fartøyer med egne staters flagg. Her skal partene etter avtale gi inspektører fra en part oppholdsrett på den andre partens fartøyer for å gjennomføre inspeksjoner av fartøyer med egen stats flagg som driver fiske i Smutthullet og det tilstøtende området i Barentshavet.
7. Partene er enige om å fortsette arbeidet med å etablere kontrollavtaler med relevante tredjeland for å få mer fullstendig informasjon om landinger i disse landene.
8. Partene understreket nødvendigheten av at det ble ført kontroll med overholdelsen av vedtatte tiltak. Regelbrudd som avdekkes ved kontroll vil medføre tilstrekkelige sanksjoner.
9. Partene er enige om å slå sammen analysegruppen og arbeidsgruppen for analyse av informasjon om overfiske av torske- og hysekvotene i Barentshavet, for å optimalisere arbeidet. Den nye gruppen skal bestå av representanter fra Fiskeridirektoratet og Kystvakten på norsk side og Den statlige fiskerikomite i Den russiske føderasjon, grenseadministrasjonen ved FSB i Murmansk fylke og Rosselkhoznadzor i Murmansk fylke på russisk side. Ekspertene kan engasjeres i gruppens arbeid etter behov. Den sammenslåtte arbeidsgruppen skal i 2008 ha møter minst en gang i kvartalet eller slik som formennene i kommisjonen bestemmer.

Arbeidsgruppen skal:

- Samarbeide innen sammenstilling av informasjon på fartøynivå for å avdekke mulige brudd på fiskerilovgivningen
- Utarbeide metode for analyse av satellittsporingsdata og informasjon om transport og landing av fisk i havner
- Beregne totalt uttak av torsk og hyse i de aktuelle områder, ved å anvende metoder for analyse av satellittsporingsdata og informasjon om transport og landing av fisk i havner.

Ledere av arbeidsgruppen skal oppnevnes innen utgangen av 2007. Arbeidsgruppen rapporterer direkte til formennene i kommisjonen.

10. Partene er enige om å gjenoppta arbeidet i underutvalget under Det permanente utvalg for utarbeidelse av tiltak for å bedre kontroll og sikre anvendelse av straffetiltak i forbindelse med brudd på fiskeribestemmelsene i Barentshavet og Norskehavet. Partene utvekslet informasjon om de to lands politi- og påtalemyndigheter. Partene er enige om at neste møte i underutvalget skal gjennomføres i løpet av første kvartal 2008. Den russiske part meddeler den norske part før utgangen av 2007 hvem som er leder for underutvalget på russisk side.

Den russiske part vil arbeide videre med å få representanter for de relevante myndigheter til å delta i underutvalgets møter.

11. Partene er enige om at for å oppnå større grad av harmonisering av kontrolltiltak er det nødvendig å gjennomføre gjensidig utveksling av inspektører som observatører i

forbindelse med landingskontroll av fangster fra norske fartøy i norske havner og fra russiske fartøy i russiske havner.

12. Omforente kontrolltiltak fremgår av Vedlegg 12.

12.7 Reglene for utøvelse av fisket i havområdet ved Svalbard

Partene konstaterte at det i 2007 hadde funnet sted drøftinger vedrørende fisket i området ved Svalbard.

12.8 Tredjelds fiske og gjennomføring av Avtale av 15. mai 1999 mellom Norge, Den russiske føderasjon og Island om visse samarbeidsforhold på fiskeriområdet

Partene utvekslet informasjon om gjennomføring av den trilaterale avtalen mellom Norge, Russland og Island, og konstaterte at avtalen har fungert etter sin hensikt.

I forbindelse med en eventuell revisjon av avtalen eller de bilaterale protokoller, vil partene underrette hverandre offisielt og i god tid før fristen for underretning om revisjon utløper.

Partene bekreftet sin enighet om at ved inngåelse av kvoteavtaler med tredjeland, skal tredjeland forplikte seg til å begrense sitt fiske til de kvoter som er tildelt av kyststatene, uavhengig av om fisket skjer i eller utenfor Norges og Russlands fiskerijurisdiksjonsområder.

Partene drøftet tredjelds fiske i Barentshavet og Norskehavet, og var enige om å videreføre aktiv kontroll med dette fisket slik at det bringes til opphør når de tildelte kvoter er oppfisket.

Partene bekreftet sin enighet om at reguleringstiltakene for bestanden av norsk-arktisk torsk gjelder i hele dens utbredelsesområde.

12.9 Felles omregningsfaktorer for fiskeprodukter

Partene var enige om at anvendelse av nøyaktige omregningsfaktorer er av avgjørende betydning for å få et sant bilde av ressursuttaket.

Partene var enige om å bruke felles omregningsfaktorer som angitt i Vedlegg 7. Partene ga Det permanente utvalg i oppdrag å utarbeide forslag til produktbeskrivelser for de ulike filetprodukter for å taes inn i Vedlegg 7.

Den norske part viste til den innarbeidede praksis i norske farvann, om at dersom det produseres andre produkter enn de beskrevne i Vedlegg 7, skal fangst estimeres og rapporteres i rund, levende vekt uten at de omforente faktorer kommer til anvendelse.

Ved fastsettelse av omregningsfaktorer skal "Agreed methods for measurement and calculation of conversion factors" og den felles norsk-russiske arbeidsinstruks for måling og beregning av omregningsfaktorer for ferske fiskeprodukter produsert om bord i fiskefartøyer, benyttes. Det permanente utvalg kan imidlertid, uten å samle tilleggsopplysninger, fremme forslag om midlertidige omregningsfaktorer for nye produkter, dersom tilgjengelig informasjon gir grunnlag for dette.

Partene ga Det permanente utvalg i oppdrag å videreføre arbeidet med fastsettelse av omregningsfaktorer i samsvar med det man har blitt enige om, jfr. Protokoll fra møtet i Det permanente utvalg i Murmansk 15. oktober 2007 (Vedlegg 9) og organisere deltakelse av russiske og norske eksperter på tokt med hverandres fiskefartøy med det formål å få sammenlignbare data for etablering av felles omregningsfaktorer ved foredling av torsk og hyse.

Partene var enige om å inkludere felles norsk-russiske undersøkelser av levende marine ressurser for 2008 for fastsettelse av omregningsfaktorer for torsk og hyse i Vedlegg 10.

12.10 Prosedyrer for stenging og åpning av fiskefelt

Partene var enige om å fortsette å anvende felles norsk-russisk ordning for stenging og åpning av fiskefelt for bunnfisk og reker.

13 Felles forskning på levende marine ressurser

Partene viste til at det norsk-russiske havforskningssamarbeidet representerer en av de lengste og beste tradisjoner i samarbeidet mellom de to land. Slik forskning er en nødvendig forutsetning for å skaffe til veie pålitelige vurderinger av fellesbestandenes tilstand og å utarbeide det vitenskapelige grunnlaget for fastsettelse av kvoter og sikre bærekraftig fiske.

Partene merket seg at både den norske og den russiske riksrevisjonen i sine revisjonsrapporter lagt fram i juni 2007, har bemerket at manglende adgangstillatelse for norske forskningsfartøyer i RØS har ført til en rekke problemer, som kan få negative konsekvenser både for den norske og den russiske fiskeriforskning og fiske, og svekker den internasjonale legitimiteten til kvoter som fastsettes av kommisjonen.

Partene understreket enda en gang betydningen av å forenkle prosedyren for tillatelser til at forskningsfartøy fra en part skal kunne arbeide i den annen parts økonomiske sone. De har til hensikt å fortsette arbeidet for å forenkle prosedyren for utstedelse av tillatelser.

Forskerne fra begge land beklaget at den russiske part ikke i fullt monn har kunnet gjennomføre de undersøkelsene som var tatt inn i det felles forskningsprogrammet for 2007.

Partene vedtok det felles norsk-russiske forskningsprogrammet på levende marine ressurser i 2008, jf Vedlegg 10.

Partene konstaterte at det er uunngåelig med et uttak av levende marine ressurser, herunder bifangst, under gjennomføringen av forskningstokt, marine ressursundersøkelser og bestandsovervåking, innsamling av data for forvaltningsbeslutninger og andre forskningsformål.

Partene fastsatte fangstkvanta for noen arter for gjennomføring av forskningsarbeid på levende marine ressurser, bestandsovervåking og innsamling av data for å treffe forvaltningsbeslutninger.

Av hensyn til transparensen i det norsk-russiske forskningssamarbeidet understrekes betydningen av at hele fangsten for disse formål, inklusive bifangst, skal rapporteres på vedtatt statistikk skjema, jf punkt 4. Havforskningsinstituttet og PINRO vil i god tid før toktstart utveksle informasjon på fastsatt måte om antall og navn på fartøy som skal delta i disse undersøkelsene og overvåking av levende marine ressurser, tid for gjennomføring av disse og fangstkvanta, jf Vedlegg 10.

Partene har gitt de norske og russiske forskerne i oppdrag å forberede det 13. norsk-russiske symposium, som vil bli avholdt i Russland i 2009. Tema for symposiet blir: "Development of the stock of Kamtchatka crab in the Barents Sea, and its effects on the Barents Sea ecosystem". Den videre planleggingen av dette symposiet vil finne sted under det årlige forskermøtet i mars 2008.

Partene støttet de norske og russiske forskernes intensjon om å utgi en bok som sammenstiller 50 års erfaring med felles norsk-russisk forskning på og forvaltning av bestandene i Barentshavet. Kommisjonen samtykket i at for en vellykket realisering av bokprosjektet, som skal gjennomføres fra 2007-2010, er det nødvendig med tilstrekkelig finansiell støtte.

14. Eventuelt

14.1 Rapport om miljøtilstand og biologiske ressurser i Barentshavet.


Den blandete norsk-russiske fiskerikommisjon anerkjenner det arbeidet som er utført i den norsk-russiske havmiljøgruppen. Samtidig anerkjenner og verdsetter fiskerikommisjonen det arbeidet som HI og PINRO har utført med den årlige økosystemrapporten for Barentshavet. Kommisjonen er tilfreds med at et slikt arbeid vil danne grunnlaget for det videre arbeid med en samlet rapport for miljøtilstand og biologiske ressurser i Barentshavet. Kommisjonen ønsker at HI og PINRO er kontaktpunkter og direkte deltakere i arbeidet med en slik utvidet rapport og understreker viktigheten av at prosjektet sikres finansiell støtte.

15 Avslutning av sesjonen

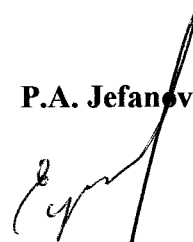
Partene var enige om å avholde neste ordinære sesjon i Den blandete norsk-russiske fiskerikommisjon i Norge i oktober/november 2008.

Denne protokoll er utferdiget 26. oktober 2007 i St. Petersburg på norsk og russisk med samme gyldighet for begge tekster.

*Representant for Kongeriket
Norges regjering i Den
blandete norsk-russiske
fiskerikommisjon*


J. Krog

*Stedfortredende representant
for Den russiske føderasjons
regjering i Den blandete
norsk-russiske
fiskerikommisjon*


P.A. Jefanov

VEDLEGG 1

DELEGASJONSLISTE NORGE, 36. SESJON I DEN BLANDETE NORSK-RUSSISKE FISKERIKOMMISSJON

	<i>Navn</i>	<i>Organisasjon</i>	<i>Stilling</i>
1	Jørn Krog	FKD	Norges representant i Den blandete norsk-russiske fiskerikommisjon Departementsråd, delegasjonsleder
2	Kirsti Henriksen	FKD	Norges stedfortredende representant i Den blandete norsk-russiske fiskerikommisjon Avdelingsdirektør, nestleder for delegasjonen
3	Anne Berit Herstad	FKD	Kommunikasjonssjef
4	Hans Olav Stensli	FKD	Seniorrådgiver
5	Einar Tallaksen	UD	Seniorrådgiver
6	Frode Nilssen	UD	Fiskeriråd, Amb. Moskva
7	Magnar Aukrust	JD	Avdelingsdirektør
8	Liv Holmefjord	Fdir	Ass.fiskeridirektør
9	Lisbeth Plassa	Fdir	Seksjonsleder
10	Einar Ellingsen	Fdir	Seksjonsleder
11	Ole Arve Misund	HI	Forskningsdirektør
12	Ingolf Røttingen	HI	Programleder
13	Harald Gjøsæter	HI	Faggrupeleder
14	Tore Haug	HI	Faggrupeleder
15	Steve Olsen	Kystvakten	Kommandørkaptein, Sjef KV Nord
16	Reidar Nilsen	Norges Fiskarlag	Leder
17	Atle Vartdal	Norges Fiskarlag	medlem
18	Knut W. Hansen	Norges Fiskarlag	landsstyremedlem
19	Paul O. Jensen	Norges kyst-fiskarlag	Styreleder
20	Jorulf Straume	FHL	Fagsjef, FHL
21	Erlend Hanssen	Norsk Sjømanns-forbund	Landsstyremedlem
22	Dag Klaastad	Tolk	
23	Jan Fr. Borge	Tolk	
24	Ingmund Fladaas	Tolk	

VEDLEGG 1

RUSSISKE DELTAKERE

på den 36. sesjon i Den blandete norsk-russiske fiskerikommisjon
St. Petersburg, 22.-26.10.2007

1. Jefanov,
Petr Anatoljevitsj - nestleder av Det føderale fiskeribyrået;
RFs stedfortredende representant i Den blandete
norsk-russiske fiskerikommisjon,
delegasjonsleder;
2. Krajnij,
Andrej Anatoljevitsj - leder av Den russiske føderasjons Statlige
fiskerikomite;
3. Bakulin,
Igor Ivanovitsj - assistent for lederen av Den russiske føderasjons
Statlige fiskerikomite;
4. Sjibanov,
Vladimir Nikolajevitsj - seksjonssjef ved Det russiske landbruks-
ministeriets Fiskeriavdeling;
5. Platonova
Anastasia Nikolajevna - seniorekspert ved det russiske Landbruks-
ministeriets Fiskeriavdeling;
6. Okhanov
Aleksandr Anatoljevitsj - avdelingssjef ved Det føderale fiskeribyrået;
7. Sominskaja,
Marina Arkadjevna - viseseksjonssjef i Det føderale fiskeribyrået;
8. Zelentsov,
Aleksandr Vladimirovitsj - Det føderale fiskeribyrået s representant i Norge
9. Sokolov,
Vasilij Igorjevitsj - visedirektør i FGUP "VNIRO";
10. Borisov,
Vladimir Mikhhajlovitsj - laboratoriesjef ved FGUP "VNIRO";
11. Sytova
Marina Vladimirovna - laboratoriesjef ved FGUP "VNIRO";
12. Pristsjepa,
Boris Fjodorovitsj - direktør i FGUP "PINRO";
13. Lepesevitsj,
Jurij Mikhhajlovitsj - visedirektør i FGUP "PINRO";
14. Drevetnjak,
Konstantin Vladimirovitsj - laboratoriesjef ved FGUP "PINRO";
15. Sjamraj,
Jevgenij Aleksandrovitj - laboratoriesjef ved FGUP "PINRO";
16. Kovalev
Jurij Aleksandrovitj - laboratoriesjef ved FGUP "PINRO";
17. Zyrjanov
Sergej Vasiljevitsj - forsker ved FGUP "PINRO";
18. Volkovinskaja,
Jekaterina Vladislavovna - sjefstolk ved FGUP "PINRO";
19. Golikov
Aleksandr Pavlovitsj - laboratoriesjef ved "SevPINRO";
20. Semenas,
Vjatsjeslav Josifovitsj - direktør ved DGUP "Murmansk regionale
monitoringsenter";
21. Javdotjsjuk,
Nina Afanasjevna - visesjef i FGUP "Murmanrybvod";

22. Antropov,
Gennadij Dmitrijevitsj - avdelingssjef ved "Rosrybkolkhozsojus";
23. Peditsj,
Darja Jurjevna - sjefsspesialist ved "Rosrybolovstvov"
territoriale administrasjon for Barentshavet og
Kvitsjøen;
24. Sedov,
Igor Leonidovitsj - avdelingsleder i "Rosselkhoznadzor";
25. Krasovskij
Vasilij Viktorovitsj - leder for "Rosselkhoznadzors" administrasjon i;
Murmansk fylke;
26. Bytsjkov
Vjatsjeslav Borisovitsj - sjef for Russlands GMI FSBs
Grensetjenestes kystvaktavdeling;
27. Nekrasov,
Sergej Vladimirovitsj - seniorinspektør i Russlands GMI FSBs
Grensetjenestes kystvaktavdeling;
28. Sosov
Aleksandr Vasiljevitsj - sjef for Russlands GMI FSBs Grensetjenestes
Murmanskavdeling;
29. Mantsjevskij
Roman Nikolajevitsj - fungerende sjef for Russlands GMI FSBs
Grensetjenestes kystvaktavdelings
koordineringssenter;
30. Kafidov
Anton Jurjevitsj - attasjé ved Russlands Utenriksdepartements
Rettsavdeling;
31. Sjadskij
Aleksej Vladimirovitsj - 1-sekretær ved Russlands Utenriksdepartements
2. europeiske avdeling;
32. Khomitsj,
Oleg Ivanovitsj - senior krigsadvokat ved RFs
generaladvokatembete
33. Sokolov
Vadim Vassirionovitsj - fungerende leder for Murmansk fylkes
Fiskeindustriavdeling;
34. Sennikov,
Sergej Aleksandrovitsj - tolk;
35. Karlin
Nikolaj Vasiljevitsj - adm. direktør i OAO "Murmansk Trålflåte";
36. Kasatkin,
Vitalij Petrovitsj - styreformann i NO "Unionen av
fiskeribedrifter i nord";
37. Kozharskij
Dmitrij Germanovitsj - visepresident i ZAO "RK Rybflot-FOR";
38. Povaljukhin,
Igor Vladimirovitsj - seniorekspert ved "Rosselkhoznadzors"
administrasjon i Murmansk fylke;

VEDLEGG 2 DAGSORDEN

Dagsorden for den 36. sesjon i Den blandete norsk-russiske fiskerikommisjon, Tromsø, 21. oktober – 26. oktober 2007

1. Åpning av sesjonen
2. Godkjenning av dagsorden
3. Arbeidsgrupper
4. Utveksling av fangststatistikk for 2006 og hittil i 2007
5. Regulering av fisket etter torsk og hyse i 2008
 - 5.1 Fastsettelse av totalkvoter og fordeling av kvoter
 - 5.2 Andre tiltak for regulering av fisket
 - 5.2.1 Tekniske reguleringer
6. Regulering av fisket etter lodde i 2008
7. Spørsmål vedrørende forvaltning av norsk vårgytende sild i 2008
8. Regulering av fisket etter andre fiskeslag i 2008
 - 8.1 Blåkveite
 - 8.1.1 Bestandstilstand for blåkveite
 - 8.1.2 Program for felles norsk-russisk forskning på blåkveite
 - 8.1.3 Om felles tiltak for regulering av blåkveite som grenseoverskridende bestand
 - 8.2 Uer
 - 8.3 Sei
 - 8.3.1 Bestandstilstand for sei
 - 8.3.2 Om grenseskridende egenskaper ved bestanden av sei i Barentshavet
9. Kamtsjatkakrabbe (*Paralithodes camtschaticus*) i Barentshavet i 2008
10. Regulering av fisket etter reker i 2008
11. Regulering av selfangsten i 2008
12. Forvaltningssamarbeid
 - 12.1 Om implementering av tiltak vedtatt under 35. sesjon vedrørende kontroll
 - 12.2 Rapport fra Det permanente utvalg for forvaltnings- og kontrollspørsmål på fiskerisektoren
 - 12.3 Regler for langsiktig, bærekraftig forvaltning av levende marine ressurser i Barentshavet og Norskehavet
 - 12.4 Erfaring med Memorandum om samarbeidsordninger mellom partenes kontrollmyndigheter
 - 12.5 Reglene for partenes utstedelse av lisenser for fiske og håndhevelse av fiskeribestemmelsene

- 12.6 Kontrolltiltak for fisket i Barentshavet og Norskehavet i 2007
- 12.7 Reglene for utøvelse av fisket i havområdene ved Svalbard
- 12.8 Tredjelandts fiske og gjennomføring av Avtale av 15. mai 1999 mellom Norge, Den russiske føderasjon og Island om visse samarbeidsforhold på fiskeriområdet
- 12.9 Felles omregningsfaktorer for fiskeprodukter
- 12.10 Prosedyrer for stenging og åpning av fiskefelt
- 13. Felles forskning på levende marine ressurser
- 14. Eventuelt
Rapport om miljøtilstand og biologiske ressurser i Barentshavet
- 15. Avslutning av sesjonen

VEDLEGG 3

**OVERSIKT OVER FORDELING AV KVOTER MELLOM NORGE, RUSSLAND OG TREDJELAND
(I TONN) I 2008**

		TOTAL KVOTE			OVERFØRING	NASJONALE KVOTER	
	SUM	AVSETNING	KVOTEANDEL		FRA		
FISKESLAG		TIL TREDJELAND	NORGE	RUSSLAND	RUSSLAND TIL NORGE	NORGE	RUSSLAND
	I	II	III=(I-II)/2	IV=(I-II)/2	V	VI=III+V	VII=IV-V
TORSK	387 000	57 700	164 650	164 650	6 000	170 650	158 650
NORSK KYSTTORSK	21 000		21 000			21 000	
MURMANSK TORSK	21 000			21 000			21 000
SUM TORSK	429 000	57 700	185 650	185 650	6 000	191 650	179 650
HYSE	147 000	7 000	70 000	70 000	4 500	74 500	65 500

VEDLEGG 4**I. FORDELING AV TREDJELANDSKVOTEN AV TORSK I 2008 (I TONN)**

TOTALT	SVALBARD- OMRÅDET	NORGES ØK. SONE	RUSSLANDS ØK. SONE
57 700	16 320	24 070	17 310

II. FORDELING AV KVOTER FOR TORSK OG HYSE TIL TREDJELAND I PARTENES ØKONOMISKE SONER I 2008 (I TONN)¹

FISKESLAG	NORGES ØK. SONE	RUSSLANDS ØK. SONE	I ALT	HERAV I DET TILSTØTENDE OMRÅDE I BARENTSHAVET	
				NORGE	RUSSLAND
TORSK	24 070	17 310	41 380	17 310	17 310
HYSE	4 200	2 800	7 000	2 800	2 800

¹Eventuelle udisponerte andeler kan overføres til nasjonal kvote.

VEDLEGG 5

KVOTER I 2008 FOR GJENSIDIG FANGST AV TORSK OG HYSE FOR NORGE OG RUSSLAND I DE TO LANDS ØKONOMISKE SONER (I TONN).

Disse kvotene gjelder ikke for et tilstøtende område for en felles fiskeriregulering i Barentshavet.

OMRÅDER	FISKEFLAG		I ALT
	TORSK	HYSE	
NORGES KVOTER I RUSSLANDS ØKONOMISKE SONE	140.000	20.000	160.000
RUSSLANDS KVOTER I NORGES ØKONOMISKE SONE	140.000	20.000	160.000

VEDLEGG 6

I. KVOTER TIL RUSSLAND PÅ NORSKE BESTANDER I NORGES ØKONOMISKE SONE (I TONN) I 2008

BESTAND	KVOTE	MERKNADER
Vanlig uer Sebastes marinus Snabeluer Sebastes mentella	2 000	Bifangst, maksimum 15% i hver enkelt fangst.
Kolmule	21 755	Kan fiskes i et nærmere avgrenset område i Norges økonomiske sone hvis koordinater vil bli presisert og i fiskerisone ved Jan Mayen utenfor 4 n. mil
Sei	15 000	Inntil 5.000 tonn kan fiskes i direkte fiske. Resterende kvantum som bifangst ved fiske av torsk og hyse, maksimum 49% i hver enkelt fangst. Bifangst ved fiske av sild, maksimum 5% i hver enkelt fangst.
Steinbit	2 000	Direkte fiske og bifangst.
Andre bestander	3 000	Ikke kvoteregulerte bestander tatt som bifangst i fiske etter kvoteregulerte bestander.

II. KVOTER TIL NORGE PÅ RUSSISKE BESTANDER I RUSSLANDS ØKONOMISKE SONE (I TONN) I 2008

BESTAND	KVOTE	MERKNADER
Reker	3 000	
Steinbit	1 500	Direkte fiske og bifangst.
Flyndre	1 000	Direkte fiske og bifangst.
Andre bestander	500	Ikke kvoteregulerte bestander tatt som bifangst i fiske etter kvoteregulerte bestander.
Grønlandssel	10 000 voksne dyr	Fangst i Østisen. Ved fangst av årsunger balanseres ett voksent dyr med 2,5 unger.*

*Også i russisk fangst i Kvitsjøen og Barentshavet balanseres 1 voksent dyr med 2,5 unger.

TEKNISKE REGULERINGSTILTAK OG FELLE OMREGNINGSFAKTORER FOR FISKEPRODUKTER

I. TEKNISKE REGULERINGSTILTAK

1. Torsk og hyse

- 1.1 Det er påbudt å bruke sorteringsrist i torskestrål i nærmere avgrensede områder i Barentshavet. Bruk av rist skal skje i henhold til tekniske spesifikasjoner fastsatt av respektive myndigheter, basert på en minste spileavstand på 55 mm. Omforente spesifikasjoner for de godkjente ristsystemene er utarbeidet.

Det er tillatt å bruke småmasket not eller duk-materiale i lede- og akterpanel i ristsystemene.

- 1.2 Det tillates innblanding av torsk og hyse under minstemål i et omfang av inntil 15% av det samlede antall i den enkelte fangst.
- 1.3 I tilfelle det i et fangstområde er mer enn 15% torsk og hyse i antall under fastsatte minstemål i fangstene, treffer hver av partene vedtak, på grunnlag av forskningsdata, om stengning av angjeldende område. Vedtak om stenging eller åpning av fiskefelt trer i kraft 7 dager etter at Partene har informert hverandre om vedtaket. Vedtaket om stenging og åpning trer i kraft straks for de to lands fartøy som mottar informasjon om vedtak direkte fra de ansvarlige myndigheter.
- 1.4 Det er forbudt å bruke flytetrål i torskefisket.

2. Lodde

De tekniske reguleringstiltak er suspendert mens det er stopp i loddefisket.

3. Sei

I fisket etter torsk og hyse er det tillatt å ha inntil 49% bifangst av sei i vekt av de enkelte fangster og av landet fangst.

I fisket etter norsk vårgytende sild nord for 62°N er det tillatt å ha inntil 5% bifangst av sei i vekt av de enkelte fangster og av landet fangst.

4. Blåkveite

Ved fiske etter andre fiskeslag er det tillatt å ha inntil 12% bifangst av blåkveite i vekt av de enkelte fangster og inntil 7% om bord ved avslutning av fisket og av landet fangst.

5. Uer

- 5.1 I fisket etter andre fiskeslag er det tillatt å ha inntil 15% bifangst av uer i vekt av de enkelte fangster og av landet fangst.

6. Kolmule

Under fisket etter kolmule tillates en innblanding på inntil 10% makrell i den enkelte fangst.

7. Reker

- 7.1 Det er påbudt å bruke sorteringsrist i alt rekefiske i de to lands jurisdiksjonsområder.
- 7.2 Bifangst av torskeyngel skal ikke overskride 800 eksemplarer per tonn reker, av hyseyngel 2 000 eksemplarer per tonn reker, og av ueryngel 300 eksemplarer per tonn reker. Bifangst av blåkveite skal ikke overskride 300 eksemplarer pr tonn reker.
- 7.3 Ved stengning av felt på grunn av for stor innblanding av blåkveite eller yngel av torsk, hyse, og uer skal vedtak om stenging eller åpning av fiskefelt tre i kraft 7 dager etter at partene har informert hverandre om vedtaket. Vedtaket om stenging og åpning trer i kraft straks for de to lands fartøy som mottar informasjon om vedtak direkte fra de ansvarlige myndigheter.

8. Fangstdagbok

Innen utgangen av hvert døgn er det tillatt å korrigere opplysninger i fangstdagboken om angjeldende døgn fangst.

9. Sorteringsristsystemer

Ved kontroll av bruk av sorteringsrist skal kontrollmyndighetene anvende instruksjonen som er utarbeidet av Det permanente utvalg for forvaltnings- og kontrollspørsmål på fiskerisektoren. Sist ajourført den 7. oktober 2005.

Partene var enige om at det for fremtiden skal være tilstrekkelig for å få tillatelse til å bruke nyutviklede sorteringsristsystemer i farvann under den annen parts jurisdiksjon, at de aktuelle spesifikasjoner for disse er godkjent i Det permanente utvalg med påfølgende rapportering til Den blandete norsk-russiske fiskerikommisjon.

II. FELLES OMREGNINGSAKTORER FOR FISKEPRODUKTER

1. Torsk

Følgende felles omregningsfaktorer skal benyttes ved ressurskontroll og ved beregning av ressursuttak for norske, russiske og tredjelandts fartøyer:

- sløyd med hode: faktor 1,18

- sløyd uten hode rundsnitt: faktor 1,50
- sløyd uten hode rettsnitt: faktor 1,55

For maskinprodusert filet:

- filet med skinn (med tykkfiskbein): faktor 2,60
- filet uten skinn (med tykkfiskbein): faktor 2,90
- filet uten skinn (uten tykkfiskbein): faktor 3,25

2. Hyse

Følgende felles omregningsfaktorer skal benyttes ved ressurskontroll og ved beregning av ressursuttak for norske, russiske og tredjelands fartøyer:

- sløyd med hode: faktor 1,14
- sløyd uten hode rundsnitt: faktor 1,40

Følgende felles midlertidige omregningsfaktorer skal benyttes ved ressurskontroll og ved beregning av ressursuttak for norske, russiske og tredjelands fartøyer:

- sløyd uten hode uten ørebein: faktor 1,65

For maskinprodusert filet:

- filet med skinn (med bein): faktor 2,65
- filet uten skinn (med bein): faktor 2,95
- filet uten skinn (uten bein): faktor 3,15

Vedlegg 8

THE 36TH SESSION OF THE JOINT NORWEGIAN - RUSSIAN FISHERIES COMMISSION,
St PETERSBURG, RUSSIA, 22-26 OCTOBER 2007

REPORT OF THE WORKING GROUP ON SEALS

Participants:

RUSSIA

G.D. ANTROPOV	Rosribkolhozsojus, Moscow
A.P. GOLIKOV	SevPINRO, Arkhangelsk
S.V. ZYRYANOV	PINRO, Murmansk

NORWAY

T. HAUG	Institute of Marine Research, Tromsø
P. JENSEN	Norwegian Coastal Fishermens Union, Lofoten
R. NILSEN	Norwegian Fisherman's Association, Trondheim
L.W. PLASSA	Directorate of Fisheries, Bergen
J. STRAUME	Norwegian Seafood Federation, Ålesund
I. FLADAAS	Interpreter

Contents:

- 1 Exchange of information and summary of seal catches in 2007.
2. Exchange of information and summary reports of research activities in 2007.
3. The status of stocks and management advice for 2008.
4. Prospects for future sealing
5. Research program for 2008+.
6. Adoption of report

1. EXCHANGE OF INFORMATION AND SUMMARY OF SEAL CATCHES IN 2007

Norwegian catches were taken by four vessels in the Greenland Sea and one vessel in the southeastern Barents Sea. For logistical reasons, Russian seal vessels did not carry out hunting in the Greenland Sea in 2007. Russian hunting in the White Sea was conducted using helicopters, ice class vessel and small plastic boats (length less than 20 meters). For economical reasons, there was no Russian hunt of whitecoats in 2007, all pups taken were beaters.

Due to the uncertain status for Greenland Sea hooded seals, no animals of the species were permitted taken in the ordinary hunt operations in 2007. Only a few animals were taken for scientific purposes.

The 2007 TACs set for harp seals in the Greenland Sea and in the Barents Sea / White Sea were as recommended by ICES (i.e., levels that would stabilise the populations at present level). For the Greenland Sea harp seals, the 2007 TAC was set at 31,200 1yr+ animals or an equivalent number of pups (where one 1yr+ animal should be balanced by 2 pups). The 2007 TAC for the Barents Sea / White Sea harp seals was 78,200 1yr+ animals or an equivalent number of pups where one 1yr+ animal should be balanced by 2.5 pups. Based on an *ad hoc* decision, the Norwegian quota was increased from 10 000 to 15,000 1yr+ animals (with a similar equivalence between 1yr+ animals and pups) in 2007.

Norwegian and Russian catches in 2007, including catches under permits for scientific purposes, are summarized in the table below:

Area/species	Norway	Russia	Sum
GREENLAND SEA			
<i>Harp seals</i>			
Pups	6188	0	6188
Older seals (1yr+)	1640	0	1640
Sum	7828	0	7828
<i>Hooded seals</i>			
Pups	27 ¹	0	27
Older seals (1yr+)	35 ¹	0	35
Sum	62	0	62
<i>Area subtotal</i>	7890	0	7890
BARENTS SEA / WHITE SEA			
<i>Harp seals</i>			
Pups	242	5276 ²	5518
Older seals (1yr+)	5911	200 ³	6111
Sum	6153	5476	11629
<i>Area subtotal</i>	6153	5476	11629
TOTAL CATCHES	14043	5476	19519

¹ Animals taken under permit for scientific purposes in the Greenland Sea

² 5138 pups taken under permit for scientific purposes in the White Sea

¹ Animals taken under permit for scientific purposes in the White Sea

2. EXCHANGE OF INFORMATION AND SUMMARY REPORTS OF RESEARCH ACTIVITIES IN 2007

2.1 Norwegian research

2.1.1 Estimation of pup production

It is recommended that comprehensive aerial surveys, designed to provide estimates of current pup production, should be conducted periodically (c. every 5 year), and that efforts should be made to ensure comparability of survey results. Therefore, harp seal surveys in the White Sea in 2000, in the Greenland Sea in 2002 and in the Northwest Atlantic in 2004 included participation by scientific personell from Norway, Canada and Russia.

Knowledge of possible variations in the abundance of Greenland Sea hooded seals has been rather restricted. As judged both from catch per unit of effort analyses and mark-recapture pup production estimates, it has been assumed that the stock has increased ever since the early 1960s, but evidence of the level of increase has been rather imprecise. Aerial surveys to estimate the hooded seal pup production were attempted, however with rather little success, in the Greenland Sea both in 1959 and in 1994. More successful aerial surveys suggested a minimum pup production of c. 24 000 (s.e. = 4 600, cv = 19.0%) in 1997. New aerial surveys to assess the Greenland Sea hooded seal pup production were conducted in 2005. Using the same methodology as in the 1997 survey, the results from the 2005 survey suggested a current hooded seal pup production in the Greenland Sea of 15 200 (s.e. = 3 790, cv = 24.9%). The results seem to indicate that the 2005 pup production of hooded seals in the Greenland Sea is considerably lower than in 1997. Incorporating available pup production estimates into a population model indicates that Greenland Sea hooded seals underwent a substantial decrease in population abundance from the late 1940s and up to the early 1980s. In the most recent two decades, the stock appears to have stabilized at a low level, approximately 71 400 (95% C.I. 38 400-104 400) 1+ animals in 2006, which may be only 10-15% of the level observed 60 years ago. The low hooded seal pup production estimates is a matter of concern for ICES who has recommended that new surveys be conducted as soon as possible.

Therefore, in the period 14 March to 3 April 2007 aerial surveys were performed in the Greenland Sea pack-ice (the West Ice), primarily to assess the pup production of the Greenland Sea population of hooded seals, alternatively also of harp seals if practicable possible. Two fixed-wing twin-engined aircrafts, stationed in Constable Pynt (East-Greenland), Akureyri (Iceland), and the Jan Mayen island, were used for reconnaissance flights and photographic surveys along transects over the whelping areas. A helicopter, operated from the applied expedition vessel (M/V "Nordsyssel") also flew reconnaissance flights, and was subsequently used for other purposes, such as monitoring the distribution of seal patches and age-staging of the pups.

The reconnaissance surveys were flown by the helicopter (14 – 24 March) and the fixed-wing aircrafts (21 March – 3 April) in an area along the eastern ice edge between 66°55' and 75°30'N. Obviously, the ice cover was narrow and the edge close to the Greenland coast in 2007, and all surveyed areas were overlaying the continental shelf (300 - 400 m depth). The reconnaissance surveys were adapted to the actual ice configuration, usually flown at altitudes ranging from 160 - 300 m. Repeated systematic east-west transects spacing 10 nm (sometimes 5 nm apart) were flown from the eastern ice edge and usually 20-30 nautical miles (sometimes longer) over the drift ice to the west. The reconnaissance surveys detected no apparent hooded seal whelping concentrations, only scattered hooded seal families and, subsequently, solitary bluebacks over a relatively large area ranging from 72°00'N and 73°51'N. Scattered harp seal whelping was observed in the same area, whereas a more concentrated harp seal whelping patch was observed to the east of the scattered hooded seals between 73°00'N and 73°40'N.

One aircraft was equipped with a Leica RC 30 camera with a motion compensation mechanism shooting AGFA Pan 400 black-and-white film. The second aircraft was fitted with a Vexcel Ultra Cam D digital camera, which provided multichannel images (Red Green Blue Infrared). On 27 March, a total of 19 photo transects, spacing 5 nautical miles, were flown using both aircrafts in the area between 72° 00'N / 18° 35' - 16° 49' W and 73° 30'N / 15° 40' - 13° W. The survey covered the entire area of scattered whelping hooded seals, including also scattered whelping harp seals in the northern parts of the covered area. The survey was conducted with low-density photographic effort where two photos were shot per 1 nm along each line, resulting in a total of 1136 photos. On 29 March, the area between 73° 03'N / 15° 42' - 14° 42' W and 73° 33'N / 15° 20' - 13° 50' W was covered using both aircrafts simultaneously in a high-density coverage of the concentrated patch of whelping harp seals. A total of 16 photo transects, spacing 2 nm, were flown with cameras operated to ensure about 80-90 % coverage of the area along each transect line, resulting in a total of 1987 photos shot. A second, smaller harp seal whelping concentration was covered in another high-density coverage on 3 April in the area between 71° 22'N / 17° 40' - 18° W and 71° 30'N / 17° 27' - 17° 46' W. Five photo transects, spacing 2 nm, were run with 80-90 % coverage of the area along each transect line, resulting in a total of 264 photos shot.

Only very few whelping hooded and harp seals were observed outside the surveyed whelping areas. The results from the aerial surveys are now being analysed and will be used to estimate the 2007 hooded and harp seal pup production in the West Ice. Subsequently, the status of the stocks will be assessed by fitting population models to the pup production estimates.

In previous hooded seal surveys the surveyed areas have traditionally consisted of two strata types: (1) whelping concentrations where both visual and photographic surveys were conducted with high-density coverage, and (2) scattered pups outside the whelping concentrations which were covered with low-density photographic surveys only. In the 2005 Greenland Sea survey hooded seal whelping occurred in three well defined concentrations, but it was not possible to run an additional low-density coverage survey of scattered pups outside these whelping concentrations. Owing to this, the total estimate presented is slightly negatively biased. In 2007, all pupping of hooded seals occurred scattered with no major patches of concentrated breeding.

This will increase the uncertainty in the estimate obtained – it remains to see how the new estimate compares with the 2005 estimate.

2.1.2 Feeding habits of harp and hooded seals

The feeding habits of Greenland Sea hooded seals throughout their distributional range of the Nordic Seas (Iceland, Norwegian, Greenland Seas) were studied in 1999-2003. The project paid special attention to the period July-February (i.e., between moulting and breeding), which is known to be the most intensive feeding period for hooded seals. Results from analyses of stomach and intestinal contents revealed that the diet was comprised of relatively few prey taxa. The squid *Gonatus fabricii* and polar cod *Boreogadus saida* were particularly important, whereas capelin *Mallotus villosus*, and sand eels *Ammodytes spp* contributed more occasionally.

During the surveys, also blubber and muscle tissues were secured from the captured animals. Similar samples were taken also from harp seals taken during the same surveys. The sampled tissues were used for analyses of fatty acid profiles and stable isotopes. The application of fatty acids analysis combined with stable isotopes in food web studies in marine ecosystems is an efficient tool, as it reflects dietary intake and assimilation over longer time periods than stomach content analysis. The use of fatty acid trophic markers (FATM) to trace the energy transfer from phytoplankton to top predators is based on the observation that primary and some secondary producers synthesize characteristic fatty acids and that this fatty acid signal is conservatively transferred through food chains. Stable isotopes reveal information about food carbon sources and trophic position of the species. The stable isotopes ratios of carbon and nitrogen ($\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) in consumer proteins and fatty acid signature in consumer lipids both reflect those of their prey. Even if the two seal species showed considerable overlap in diet and occur at relatively similar trophic levels, the fatty acid profile indicated that the base of the food chain of harp and hooded seals was different. The fatty acids of harp seals originated from diatom based food chain, typically for high Arctic ice covered ecosystems. The fatty acids of hooded seals originate from dinoflagellate and the prymnesiophyte *Phaeocystis pouchetii* based food chain, which associates this species with more open Atlantic waters ecosystems.

2.1.3 Physiology/migrations, hooded seals

Both the University of Tromsø (UIT) and the Norwegian Polar Institute (NPI) have deployed satellite tags on young hooded seals in the Greenland Sea in 2007. UIT are also conducting various physiological studies of the species.

2.2 Russian research

2.2.1 New data on pup production of harp seals in the White Sea

During 1997-2005, 7 air surveys of harp seal pups production were carried out in the White Sea during whelping time. These surveys were made onboard research aircraft An-26 "Arktika" using the same technology and methods, so-called multispectral methods. Results of surveys carried out in 1997-2003 were adopted and approved by the Joint ICES/NAFO WG on Harp and Hooded Seals (WGHARP, St. Johns, Newfoundland, Canada, 30 August-3 September 2005). These data were used for harp seals of the White Sea/Barents Sea population in stock abundance modeling calculation and definition of catch option with corresponding population trend for the next 10-years period.

WGHARP was sufficiently concerned about biases resulting from the late and incomplete coverage of the surveys in 2004 (air survey results from 23 March was adopted for harp seal pups numbers calculation) to recommend that the 2004 results and estimate should not be used in the model. Therefore, WGHARP recommended to wait for the 2005 air survey results and estimates, which was flown earlier and covered the whole area. These recommendations were fulfilled. Calculations of harp seal pup production in 2005 yielded a final estimate of pup numbers of 122 400 (SE=19 900) including catch (14 000). This number is less in comparison with 2004, when the number of harp seal pups was estimated as 234 000 (SE=48 000).

Unfortunately, in 2006 and 2007 PINRO could not continue air surveys using multispectral methods as in previous years. However, in 2006 scientists tried to use data which was obtained during reconnaissance flights with aircraft and helicopter in preparing and carrying out of commercial harp seals catch during whelping (March). This resulted in an expert estimation of pup numbers, which was no more than 120 000.

In March 2007, under financial support of the International Fund for Animal Welfare (IFAW), the Council of Marine Mammals, GIPRORYBFLOT and the Institute of Problems of Ecology and Evolution of the Russian Academy of Sciences (IPEE RAS), conducted an airborne survey for harp seals in the White Sea. Data were presented at the joint meeting of Scientific Advisory Council on Marine Mammals of the Inter-Departmental Ichthyological Commission and Council of Marine Mammals in October 2007. Based on the multispectral airborne survey on the whelping grounds conducted from 14 to 17 March 2007 using the research aircraft L-410, data on pup production, some biological parameters of the seals, ice coverage and evidences of the effect of shipping on the whelping grounds were obtained. Harp seal pup production in the White Sea in 2007 was estimated at $158\,600 \pm 28\,000$ pups which may indicate a two-fold reduction in pup production in the area compared with the 2000-2003 data. The possible decrease in pup production of harp seals indicate the need to revise some of the methodological approaches used to evaluate the effect of climate change and human activities on marine mammals.

2.2.2 Biological data collection from harp seal pups and adults in the White Sea

In March- April 2007 observations on distribution of the harp seal whelping grounds were made from an aircraft and a sealer. Whelping grounds were formed on the ice along the Kola Peninsula. Dense aggregations were observed across settlements of Kashkarantsy, Kuzomen, Chapoma and in the area of the Sosnovets Island. The majority of females probably whelped in the area of Kashkarantsy and Kuzomen settlements, far more westerly than the main whelping grounds

observed in previous years. It is assumed that most pups moved to waters of the White Sea Basin after lactation.

Distribution of the moulting grounds of the harp seals showed some peculiarities, presumably due to little ice coverage of the White Sea in 2007. The main moulting grounds were localized to the north of 66°N in the Basin and Gorlo. In the southern part of Voronka no extensive moulting aggregations were found.

Biological samples were taken from pups and adult harp seals. The material indicated that the period of pup stay in the White Sea and morphological parameters of harp seals corresponded to the long-term values. Data collected are used for monitoring of the state of pups and adults.

2.2.3 Monitoring of harp seal pup mortality in the White Sea in the spring-summer season

Based on data from the report presented by the GIPRORYBFLOT institute at the joint meeting of Scientific Advisory Council on Marine Mammals of the Inter-Departmental Ichthyological Commission and Council of Marine Mammals in October 2007, calculations were done to evaluate the effect of shipping routes on the whelping grounds of harp seals. It was observed that shipping routes crossed the dense harp seal whelping grounds, and estimations of pup mortality as a result of the shipping activity may constitute from 2 to 5 thousand pups.

Unusual ice coverage in the White Sea in March 2007 may also have caused higher mortality of pups:

- The area of the ice coverage in the White Sea has decreased substantially (resulting in only half the size of the long-term average);
- Due to little area covered by ice suitable for whelping, the density of the harp seal aggregations was very high, reaching 1500 harp seals per square kilometer;
- The period of ice presence in the White Sea has decreased considerably (70 days as compared with the usual 150 days), subsequently this reduced the possible period on ice for the pups;
- Thin ice was easily broken under the effect of strong winds.

2.2.4 Research on white whale biology in the White Sea

In 2007 no work to study white whale in the White Sea were carried out. Due to insufficient financing and prohibition to import to Russia foreign satellite tags, the research on tagging were not conducted.

2.3. Joint Norwegian-Russian work

2.3.1 Feeding habits of harp seals in open waters of the Barents Sea

In 2001 and 2002, Norwegian and Russian scientists performed an aerial survey to assess whether there was an overlap in distribution, and thus potential predation, between harp seals and capelin in the Barents Sea. This experiment is now being followed with boat-based surveys aimed to

study pelagic feeding by harp seals in the Barents Sea during summer and autumn. In May/June 2004, in June/July 2005, and in May/June 2006, Norwegian surveys were conducted, aimed to study the feeding habits of harp seals occurring in the open waters of the Barents Sea. Very few seals were observed along the coast of Finnmark, and no seals were seen in the open, ice-free areas. In the northwestern parts of the Barents Sea, however, very large numbers of seals were observed along the ice edge and 20-30 nautical miles south of this. In these areas, 33, 55 and 57 harp seals were shot and sampled (stomachs, intestines, blubber cores) in 2004, 2005 and 2006, respectively. Additionally, samples of faeces were taken from the haul out sites on the ice. Preliminary results from the analyses (which also included older material from 1996-1997) indicate that the summer consumption to a large extent was dominated by krill, whereas polar cod also contributed importantly. All sampling were performed in a period with low capelin abundance – this may have influenced the results. The total consumption increase throughout the summer, from a total of 165 thousand tons in May to 335, 435 and 820 thousand tons in June, July and August, respectively. The collected material is now being used to develop a revised model for annual harp seal consumption of food resources, fish resources such as capelin in particular, in the Barents Sea. Harp seal consumption will be implemented in assessment models for the Barents Sea resources.

2.3.2 Joint seal age estimations

Biological parameters (fertility, mortality, demography) are important input in models used for seal assessments. Data availability is, however, restricted, and it is important to establish routines for sampling. A substantial material of teeth (for ageing) has already been sampled, both by Norway and Russia, from commercial catches. This material is very useful, and some joint Norwegian-Russian age-reading experiments have been conducted on harp seal teeth. Age estimates of known age teeth (obtained from mark-recapture experiments) suggested differences between readers in both accuracy and precision, but these were not found to be statistically significant. Overall the study indicates that age estimates of harp seals should be treated as probability distributions rather than point estimates even in the youngest age classes. Adequate description of the probability distributions and the effects of having different readers can only be achieved by repeating the experiment with a much larger sample size. To obtain this, and to try to standardise reading between laboratories, a joint workshop was arranged in Bergen, Norway in November 2006. A total of 17 specialists from all Nordic countries, Russia, Canada and Holland participated.

2.3.3 Joint studies of life history parameters

Historical Norwegian and Russian data which describe the trends in fertility rate and maturity at average age (MAM) for hooded seals in the Greenland Sea have recently been subjected to joint Russian-Norwegian analyses. Age at maturity was determined by fitting Richards' curves to age specific proportions of mature females in scientific samples taken by Russian scientists in the Greenland Sea pack ice in May-June in the years 1990-94. Samples from the Denmark Strait (1956-60) and South Greenland (1970-71) previously analysed by the back calculation method were also included in the present analyses. Although there were annual difference in MAM among the Greenland Sea samples a common MAM of 4.8 years could be fit to all years .

Similarly, a common MAM of 3.1 year could be fit to the two Northwest Atlantic samples. This represents a temporal and a stock specific split in the sample and it cannot be concluded which factor is more important. Ovulation rates of mature females ranged from 0.68 in May 1990 to 0.99 in June 1991 and 1992, but the average ovulation rate of 0.88 was similar to previous estimates for Northwest Atlantic hooded seals. For breeding and moulting patch samples taken in the period 1986-1990, indirect measures of pregnancy rates derived from patterns of alternation in corpora formation between ovaries ranged from 0.74 to 0.97 and were significantly lower in 1987 and 1988 than in all other samples including the older data for the Northwest Atlantic stock ranging from 0.94 to 0.97.

2.3.4 Joint studies of harp seal stock identity

Tissue samples were collected from harp seal pups in the Greenland Sea (50 individuals, taken on Norwegian sealer) and in the White Sea (50 individuals, taken by Russian scientists) in 2005. Additional samples (50) were obtained from the Greenland Sea in 2007. Also, several samples were obtained from a harp seal breeding patch observed in southern Greenland in 2007. These samples will be compared with the Greenland Sea samples and with samples that are to be collected in the Northwest Atlantic in 2008. All samples will be subject to genetic analyses (DNA-based) to address the question of stock identity of harp seals in the North Atlantic – analyses are already in progress.

2.3.5 Joint Research program on harp Seal Ecology

Harp seals are the most important marine mammal top predators in the Barents Sea. To be able to assess the ecological role of harp seals by estimation of the relative contribution of various prey items to their total food consumption in the Barents Sea, more knowledge both of the spatial distribution of the seals over time, and of their food choice in areas identified as hot-spot feeding areas is urgently needed. For this reason, the Joint Norwegian-Russian Fisheries Commission has decided to initiate a joint research program on harp seal ecology aimed to:

- assess the spatial distribution of harp seals throughout the year (experiments with satellite-based tags)
- assess and quantify overlap between harp seals and potential prey organisms on hot-spot feeding grounds (use of data from relevant Norwegian and Russian ecosystem surveys and Russian aerial surveys)
- identify relative composition of harp seal diets in areas and periods of particular intensive feeding (sampling of seals for diet studies in dedicated surveys and coast expeditions to selected hot-spot feeding areas)
- secure the availability of data necessary for estimation of population size of Northeast Atlantic harp seals (pup production, demography, natality/mortality, catch history)
- estimate the total consumption by harp seals in the Barents Sea (modelling)
- implement harp seal predation in assessment models for other relevant resources (modelling)

The program was assumed to start in 2007 with a tagging program for harp seals in the White Sea. This activity will give a necessary and important contribution to a better understanding of the

temporal and spatial distribution of the seals, which is important input data when their total consumption of marine resources in the Barents Sea is to be assessed. It is important that animals of different sexes and ages are tagged. The program is assumed to run for 5 years, with 15 tags being deployed every spring (i.e., immediately after the moulting period).

First deployment of tags was planned to be conducted in the White Sea in May 2007. Tags are already provided. However, Russian authorities refused to permit the deployment. The reason given was that they could not allow availability of data which combined current information about position, depth, temperature and salinity. The tags planned to be applied, however, do not give information about oceanographic data. This has now been reported back to Russian authorities, and it is the intention to deploy the tags in 2008 provided permission is given.

As part of the joint program, marine mammals – harp seals included - were observed and recorded on the ecosystem surveys conducted in the Barents Sea in 2007.

3. STATUS OF STOCKS AND MANAGEMENT ADVICE FOR 2008

WGHARP met at the Department of Fisheries and Oceans (DFO), St. John's, Newfoundland, Canada, 30 August-3 September 2005, and in the ICES Headquarters, Copenhagen, Denmark, on 12-16 June 2006, to assess the stocks of Greenland Sea harp seals, White Sea / Barents Sea harp seals and Greenland Sea hooded seals. Updated information was available for all stocks to enable WGHARP to perform modelling which provided ICES with sufficient information to give advice (for harp seals in October 2005, for hooded seals in August 2006) on status and to identify catch options that would sustain the populations at present levels within a 10 year period.

Management agencies have requested advice on “sustainable” yields for these stocks. ICES notes that the use of “sustainable” in this context is not identical to its interpretation of “sustainable” applied in advice on fish and invertebrate stocks. “Sustainable catch” as used in the yield estimates for seals means the catch that is risk neutral with regard to maintaining the population at its current size within the next 10 year period.

Population assessments were based on a population model that estimates the current total population size. These estimates are then projected into the future to provide a future population size for which statistical uncertainty is provided for each set of catch options. Since the previous assessment (2003), the model used has been modified based upon recommendation from WGHARP. The major difference is that the model now estimates the biological parameters adult and pup mortalities (M_{1+} and M_0) and pregnancy rates (F) rather than using them as fixed input. The model estimates the current total population size using historical catch data and estimates of pup production. In principle, the model can also estimate biological parameters (M_{1+} , M_0 and F), but for the populations to which the model is applied there is not enough data to provide accurate estimates of M_{1+} , M_0 and F . To compensate for the lack of data, information from other similar populations are used as input to the model in the form of a prior distribution (mean and standard

deviation) for each of the parameter. The same population dynamic model was used for all three seal populations in question, but with stock specific values of prior distributions for M_0 , M_{1+} and F . The modifications implemented in the model was an improvement from previously used estimation programs. For harp seals, the modified model gives higher stock estimates and catch options than the previous model. These differences are primarily due to the change in the estimate of M_{1+} (which was fixed at value which is now regarded to have been too high) and the inclusion of additional sources of uncertainty in the parameters.

The advice given by ICES in 2005 and 2006 was used by this Working Group on Seals to establish management advice for 2008 to the Joint Norwegian-Russian Fisheries Commission.

3.1. Greenland Sea

The Working Group **recommends** the following opening dates for the 2008 catch season: 1) Suckling pups, opening date of 18 March (0700 GMT) for catches of pups of both harp and hooded seals; 2) weaned pups, opening dates 20 March for hooded seals and 1 April for harp seals; 3) seals aged 1 yr and older (1yr+), opening date 22 March for hooded seals and between 1 and 10 April for harp seals. Adult hooded seal males should be permitted taken from 18 March. The Group recommends a closing date set at 30 June (2400 GMT) for harp seals and 10 July (2400 GMT) for hooded seals in 2008. Exceptions on opening and closing terms may be made in case of unfavourable weather or ice conditions. If, for any reason, catches of pups are not permitted, quotas can be filled by hunting moulting seals.

The Working Group agreed that the ban on killing adult females in the breeding lairs should be maintained for both harp and hooded seals in 2008.

3.1.1 Hooded seals

The Working Group noted the conclusion from ICES that recent removals have been below the recommended sustainable yields.

Results from a pup survey conducted in 2005 suggest that current pup production (15 200 pups, CV = 0.25) is lower than observed in a comparable 1997 survey (23 800 pups, CV = 0.19). Model explorations indicate a decrease in population abundance from the late 1940s and up to the early 1980s. In the most recent two decades, the stock appears to have stabilized at a low level which may be only 10-15% of the level observed 60 years ago. The modelling exercises included the two pup estimates as well as available information about age at maturity and estimates of natural mortality and natality. Based on these inputs the model estimated the following 2006 abundance for Greenland Sea hooded seals: 71 400 (95% C.I. 38 400-104 400) 1+ animals with a pup production of 16 900 (95% C.I. 10 200-23 600).

Catch estimation: ICES was requested to give options (with indication of medium term consequences) for three different catch scenarios:

- Current catch level (average of the catches in the period 2001 – 2005)
- Maintenance catches (defined as the fixed annual catches that stabilizes the future 1+ population)
- Two times the maintenance catches.

ICES still regard the Greenland Sea stock of hooded seals as data poor. Due to the restricted availability of data, ICES is not in the position to estimate future 1+ populations and can therefore not estimate sustainable catches. Instead, the concept of the Potential Biological Removal level (PBR) was used to calculate catch limits. The PBR approach identifies the maximum allowable removals that will ensure that the risk of the population falling below a certain lower limit is only 5% and that would allow a stock that dropped below this limit to recover. Using the PBR approach, the catch limit was calculated at 2,189 animals. However, ICES concludes that even harvesting at the PBR level could result in a continued stock decline or a lack of recovery. ICES therefore, concludes that the harvesting should not be permitted with the exception of catches for scientific purposes from 2007 on.

The Working Group **recommend** that this ICES advice is implemented in future management of hooded seals in the Greenland Sea: Removals should be stopped until more information about current stock status becomes available. As recommended by ICES, new surveys of pup production and updating of information on reproductive rates and health status were conducted for hooded seals in the Greenland Sea in 2007. The data are now being analyzed, and the results will be presented at the next WGHARP meeting in Tromsø, Norway, in August 2008.

3.1.2 Harp seals

The Working Group noted the conclusion by ICES that recent removals have been below the recommended sustainable yields, and that prolongation of current catch level will likely result in an increase in population size.

The model solves for a constant exploitation which stabilise the 1+ population. Inputs to the model were:

Pup production estimates from previous tag-recapture experiments (1983-1991) and from recent (2002) aerial surveys:

Year	Pup production estimates	c.v.
1983	58 539	.104
1984	103 250	.147
1985	111 084	.199
1987	49 970	.076
1988	58 697	.184

1989	110 614	.077
1990	55 625	.077
1991	67 271	.082
2002	98 500	.179

As well as these pup estimates the model includes age at maturity and estimates of natural mortality and natality. Based on these inputs the model estimated the following 2005 abundance for Greenland Sea harp seals: 618 000 (95% C.I. 413 000-823 000) 1+ animals with a pup production of 106 000 (95% C.I. 71 000-141 000).

Catch estimation: Based on a request from Norway, ICES gave catch options for three different catch scenarios:

- Current catch level (average of the catches in the period 2001 – 2005)
- Sustainable catches.
- Two times the sustainable catches.

The sustainable catches are defined as the (fixed) annual catches that stabilise the future 1+ population. The catch options are further expanded using different proportions of pups and 1+ animals in the catches.

As a measure of the future development of the estimated population, the ratio between the size of the 1+ population in 2015 and 2005 is used.

Option #	Catch level	Proportion of 1+ in catches	Pup catch	1+ catch	10 Year Projection
					$N_{2015,1+} / N_{2005,1+}$
1	Current	25.6% (current level)	3 303	1 138	1.51 (1.18-1.83)
2	Sustainable	25.6%	36 688	12 624	1.01 (0.61-1.41)
3	Sustainable	100%	0	31 194	1.05 (0.66-1.44)
4	2 X sust.	25.6%	73 376	25 248	0.45 (0.00-0.97)
5	2 X sust.	100%	0	62 388	0.55 (0.06-1.03)

While current catch level (option 1) will likely result in an increase in population size, ICES emphasized that a catch of 31 194 1+ animals (catch option 3), or an equivalent number of pups, in 2006 and subsequent years would sustain the population at present level within a 10 year period. The Working Group **recommend** that this be used as a basis for the determination of a TAC for harp seals in the Greenland Sea also in 2008: **31 200 1+ animals or an equivalent number of pups. If a harvest scenario including both 1+ animals and pups is chosen, one 1+ seal should be balanced by 2 pups.**

Catches 2X sustainable levels will result in the population declining by approximately 45-55% in

the next 10 years.

3.2 *The Barents Sea / White Sea*

The Working Group **recommends** the following terms concerning opening and closing dates and areas of the catches: From 28 February to 15 May for Russian coastal and vessel catches and from 23 March to 15 May for Norwegian sealing ships. Exceptions from opening and closing dates should be made, if necessary, for scientific purposes. The Norwegian participants in the Working Group suggest to prolong dates of harvesting to 1 July, and to determine the operational areas for the Norwegian catch activities to be the southeastern Barents Sea to the east of 20°E.

The Working Group agreed that the ban on killing adult harp seal females in the breeding lairs should be maintained in 2008.

3.2.1. Harp seal.

The Working Group noted the conclusion by ICES that recent removals have been below the recommended sustainable yields, that prolongation of current catch level will likely result in an increase in population size, and that there is some evidence that densities may be so high that biological processes like rate of maturation may be showing density dependent effects. There are reports that pup mortality rates may vary substantially in the White Sea region, and that in recent years these rates have been very high. For this reason, the 2005 abundance of White Sea harp seals was estimated under the assumption that the ratio between the natural mortality of pups and adults was 5 instead of 3.

The model solves for a constant exploitation which stabilise the 1+ population. Inputs to the model were:

Pup production estimates (from Russian aerial surveys):

Year	Pup production estimate	c.v.
1998	286 260	.073
2000	325 643	.111
2000	339 710	.095
2002	330 000	.103
2003	327 000	.125

For 2000 there are two independent estimates for pup production.

As well as these pup estimates the model includes age at maturity and estimates of natural mortality and natality. Based on these inputs the model estimated the following 2005 abundance of harp seals in the White Sea: 2 065 000 (95% C.I. 1 497 000-2 633 000) 1+ animals with a pup

production of 361 000 (95% C.I. 299 000-423 000).

Catch estimation: Based on a request from Norway, ICES gave catch options for three different catch scenarios:

- Current catch level (average of the catches in the period 2001 – 2005)
- Sustainable catches.
- Two times the sustainable catches.

The sustainable catches are defined as the (fixed) annual catches that stabilise the future 1+ population. The catch options are further expanded using different proportions of pups and 1+ animals in the catches.

As a measure of the future development of the estimated population, the ratio between the size of the 1+ population in 2015 and 2005 is used.

Option #	Catch level	Proportion of 1+ in catches	Pup catch	1+ catch	10 Year Projection
					$N_{2015,1+} / N_{2005,1+}$
1	Current	11.5% (current level)	25 945	3 371	1.35 (0.91-1.78)
2	Sustainable	11.5%	153 878	19 995	0.98 (0.57-1.39)
3	Sustainable	100%	0	78 198	1.04 (0.62-1.50)
4	2 X sust.	11.5%	307 756	39 990	0.53 (0.12-0.93)
5	2 X sust.	100%	0	156 396	0.67 (0.24-1.10)

While current catch level (option 1) will likely result in an increase in population size, ICES emphasized that a catch of 78 198 1+ animals (catch option 3), or an equivalent number of pups, in 2006 and subsequent years would sustain the population at the present level within a 10 year period. Catches 2X sustainable levels (options 4 and 5) will result in the population declining by approximately 53-67% in the next 10 years.

Russian aeroplane surveys of White Sea harp seal pups were conducted also in March 2004 and 2005 using traditional strip transect methodology and multiple sensors. The results obtained may indicate a reduction in pup production as compared with the results obtained in similar surveys in 1998-2003. Surveys flown with helicopters in March 2006 and fixed-wing aircraft in March 2007 apparently confirm the possible reductions in pup production. Severe reductions in both period and extension of ice cover in the White Sea in recent years may have contributed to the possible reductions in pup production in the area. The Working Group strongly **recommend** that new aerial surveys must be conducted in the area in 2008 to investigate whether this possible reduction in pup production still prevail.

The possible reductions in pup production for harp seals in the White Sea is a matter of concern. For this reason the Russian part has suggested to preliminary reduce the TAC to 45 100 1+

animals, which is below the sustainable level suggested by ICES. The Norwegian party emphasized the need to consider the harp seal quotas in an ecosystem perspective which would require a more complete use of the quotas given by ICES. A more complete use of harp seal quotas in the White Sea will also promote Russian-Norwegian cooperation in the Barents and White Seas and, in particular, contribute to development of Russian vessel-based and land-based hunting.

Nevertheless, with reference to current uncertainty associated with the stock status, The Working Group **recommend** that the TAC suggested by the Russian part be used as a basis for the determination of a TAC for harp seals in the White Sea / Barents Sea in 2008:

45 100 1+ animals or an equivalent number of pups. If a harvest scenario including both animals and pups is chosen, one 1+ seal should be balanced by 2.5 pups.

The Russian part suggested that the Norwegian share of this TAC should be 10 000 1+ animals.

3.2.2 Other species

The Working Group agreed that commercial hunt of bearded seals should be banned in 2008, as in previous years, but it **recommend** to start catch under permit for scientific purposes to investigate results of long time protection.

4. PROSPECTS FOR FUTURE SEALING ACTIVITIES

There are concerns over the current lack of ability on both the Norwegian and Russian side to fulfill given seal quotas. Also, the multispecies perspective of seal management is a matter of concern in the two countries. The main problem for the sealing industry in the last 2-3 decades has been the market situation. Protest activities initiated by several Non-governmental Organisations in the 1970s destroyed many of the old markets for traditional seal products which were primarily the skins. The results have been reduced profitability which subsequently resulted in reduction in available harvest capacity (e.g., the availability of ice-going vessels) and effort. With the present reduced logistic harvest capacity in Norway and Russia it is impossible to take out catches that would stabilise the stocks at their present levels. Unless sealing again becomes profitable, it is likely that this situation will prevail.

It is the opinion of the Working Group that future sealing activities must be profitable. If sealing profitability increases, hunting levels are very likely to increase. This calls for availability of updated information about stock status (abundance, productivity and catch statistics), such that catch options can be defined on the best possible basis. Under the precautionary approach, ICES (and NAFO) will not give harvest advice unless such updated information is available. Hunting nations must secure that the stocks are monitored and assessed using accepted methods at regular intervals (no less than every 5 year). The Working Group feels that both countries now contribute

acceptably to this in that Russian scientists estimates the abundance of White Sea harp seals regularly, last time in 2007, whereas Norway aims to estimate Greenland Sea harp and hooded seals regularly, preferably with no more than 5 years between each survey. Greenland Sea harp and hooded seals were surveyed in 2007.

Regulation of the seal populations should be conducted as part of an ecosystem management. Nevertheless, seals must be harvested as resources, and not as a pest. Thus, seal resources should be exploited according to the same principles as any other living marine resources. In an ecosystem context, harp seals are most important. Given the uncertain situation for the hooded seal stock, the Working Group **recommend** that sealing activities in the Northeast Atlantic focus on harp seals in the coming years.

The Working Group appreciated Russian efforts to change from helicopter-based to boat-based hunting in the White Sea. The Russian part informed the Working Group that the catches in 2007 were carried out partly with helicopter and partly with a vessel. Unfortunately, the helicopter part of the hunt was severely hampered by bad weather and ice conditions, so most of the 2007 catches in the White Sea were taken in the boat-based operations which included one large vessel and three smaller catcher boats with outboard motors. Plans for the 2008 season include both helicopter-based (mainly to take whitecoats) and boat-based (mainly targeting beaters) hunt. Although all hunters in the White Sea were Russians, the boat based activities occurs as a cooperative project between the authorities of the Arkhangelsk oblast and the Norwegian company GC Rieber Skinn AS. The latter company has also established a daughter company in Arkhangelsk, GC Rieber Skinn Pomor'e Lic.

As a further development of the Norwegian-Russian efforts to develop the seal harvesting in the White Sea, the Norwegian company Polardrift AS plan to establish a company in Russia, aiming to hunt seals with their own sealing vessel MS "Kvitungen". The vessel will operate under Russian flag, primarily with Russian crew, and in close cooperation with GC Rieber Skinn Pomor'e. The company has applied to Russian authorities for permission to start this activity in the 2008 season, and the Working Group **recommend** that Russian authorities give priority to a quick and serious consideration of the application.

Increased profitability is necessary to enable an urgent renewal of the Norwegian vessel fleet. As for the new Russian fleet, also new Norwegian sealing vessels must be designed in such a way that they can be used for other purposes outside the sealing season. Until sealing again become self-sustained and profitable, Norwegian fisheries organisations and authorities will have to find solutions that secure the existence of an effective and competent seal-fleet.

To assure self-sustained profitability in future sealing activities, the Working Group concluded that it would be necessary to increase the profits of sealing by increasing the value of each seal. It is preferable that the whole animal is utilized, and that effort is spent to develop methods to make new products of the parts of the seal that is otherwise discarded. When seal meat is taken for human consumption, the production lines onboard the vessels must meet the usual standards for food production. The Working Group **recommend** that Norway and Russia cooperate closely in the necessary development of future sealing. This cooperation may include such elements as the

joint use of Norwegian vessels in the White Sea, development of joint industry for seal products etc.

In September 2003, the workshop “Prospects for future sealing activities in the North Atlantic” was held at SevPINRO in Archangelsk, Russia with participation from Canada, Greenland, Norway and Russia. The meeting was very successful, and in retrospect this Working Group recommended that similar workshops, with representatives of the sealing industry in the northern region, should be arranged on a more regular basis in the future. The Working Group now feels the time mature for a new workshop, and **recommend** that it should be arranged in Tromsø, Norway in August 2008. Preferably, the workshop should be arranged back to back with WGHARP which will meet in Tromsø 19-22 August 2008. That would secure participation of scientists at the workshop. Again the workshop should be an arena where experts involved in the various aspects and branches of sealing can meet. This must primarily be a meeting for people from all levels of the sealing industry, including participants with knowledge of both the sealing itself, the products and their application, and the market prospects. Themes addressed should primarily focus on market prospects for traditional products (skins), but also the possibility to introduce “new” products (meat- or blubber-based) on the markets should be assessed. Participation also from other seal hunting nations must be secured, in particular Canada and Greenland. To ensure input about the resource bases and management, also participants from management authorities and science is needed.

5. RESEARCH PROGRAM FOR 2008+

5.1. Norwegian investigations

5.1.1 Estimation of harp and hooded seal pup production in the Greenland Sea

Data for pup production estimation were obtained from both harp and hooded seals in the Greenland Sea in March/April 2007. Analyses of these data will be an important Norwegian activity in 2008 – the plan is that results shall be presented for and used by WGHARP at the meeting in Tromsø in August 2008.

5.1.2 Collection of biological material from the commercial and local hunt and dedicated surveys

Biological material, to establish age distributions in catches as well as health, reproductive and nutritive status of the animals, will be collected from commercial catches of harp seals both in the southeastern Barents Sea and in the Greenland Sea in 2008. In the Greenland Sea, samples will also be obtained also from local Greenland hunters and from seals sampled for scientific purposes in a dedicated research cruise in June/July.

5.1.3 Ecology of harp and hooded seals in the Greenland Sea

A project aimed to provide the data necessary for an assessment of the ecological role of Greenland Sea harp and hooded seals throughout their distributional area of the Nordic Seas (Iceland, Norwegian, Greenland Seas) was conducted in 1999-2003. The field work is now completed, some results are published, and it is the intention that the data shall be subjected to further analyses and prepared for publication in 2008.

5.1.4 Harp seals taken as by-catches in gillnets

Provided harp seals invade the coast of North Norway also during winter in 2008, biological samples will be secured from animals taken as bycatches in Norwegian gill net fisheries.

5.1.5 Seal physiology and tagging

On research cruises to the Greenland Sea in March/April 2008, various physiological parameters of harp and hooded seals will be studied. Also, some satellite based tags will be deployed on hooded seals in the area.

5.2. Russian investigations

5.2.1 Russian research on the White Sea/Barents Sea harp seal population

Plans to carry out annual accounting multispectral aerial surveys with aim to use these data for determination of population size by modelling, and in Joint Norwegian-Russian Research Program on Harp Seal Ecology. This research will be carried out under recommendations of ICES WGHARP and JRNFC 36 session.

Research on harp seal reproductive biology is planned to be carried out in the White and the Barents Seas. The final aim is study of harp seal biological data (mortality, maturity, birth rate, morphological and physiological indexes, etc.). During springtime work will be continued on pup mortality estimation in the White Sea. Plans to continue research on harp seal feeding in the White and the Barents Seas during spring and summer times. This research will be carried out under the program and recommendation of WGHARP and JRNFC 36 session.

5.3. Joint Norwegian - Russian investigations

5.3.1 Feeding habits of harp seals in open waters of the Barents Sea

In 2001 and 2002, Norwegian and Russian scientists performed an aerial survey to assess whether there was an overlap in distribution, and thus potential predation, between harp seals and capelin in the Barents Sea. This experiment was followed with boat-based surveys aimed to study pelagic feeding by harp seals in the Barents Sea during summer and autumn in (2004-2006), and the results from these investigations are now being analysed and prepared for presentation/publication.

5.3.2 Tagging of Barents Sea / White Sea harp seals with satellite tags

The successful joint Norwegian-Russian 1996 project (and a similar project during harp seal breeding in 1995) with tagging of harp seals with satellite transmitters in the White Sea is planned to be continued with final analyses of data and joint publication of results in 2006/2007. The Working Group **recommends** that satellite tagging experiments with harp seals in the White Sea are continued jointly between Norwegian and Russian scientists with the purpose to study distribution, migrations and daily activity of the seals. This activity is part of the joint research program, and will give an important contribution to a better understanding of the temporal and spatial distribution of the seals, which is important input data when their total consumption of marine resources in the Barents Sea is to be assessed. It is important that animals of different sexes and ages are tagged. In 2004 a joint research program (written by Drs Arne Bjørge, Mette Mauritzen and Vladislav Svetochev) that ensures a proper design on the experiment, has been developed. The program describes the background for the project, the types of equipment to be used, how the field work will be carried out, and the total costs. The program is assumed to run for 5 years, with 15 tags being deployed every spring (i.e., immediately after the moulting period). First deployment of tags will be conducted in the White Sea in 2008. It is important that both young immature seals and adults are tagged each year.

5.3.3 Life history parameters in seals

Upon request, forwarded during meetings of the Joint Norwegian-Russian Fisheries Commission, one Russian scientist was invited to participate in scientific work on Norwegian sealers during March-April in 1997-1999 in the southeastern part of the Barents Sea, and in 2000 in the Greenland Sea. This Norwegian-Russian research cooperation is encouraged, e.g., by extending an invitation to Russian scientists to participate on Norwegian sealers in the southeastern Barents Sea and/or in the Greenland Sea also in the future. This would enable coordinated and joint sampling of new biological material. The Working Group **recommend** that Russian scientists are offered the possibility to participate in Norwegian research activities in 2008. If Russia can realize scientific or commercial vessel trips in the White, Barents and Greenland Seas, invitation for participation of Norwegian scientists is desirable.

5.4. *Necessary research takes*

For completion of the proposed Norwegian and Russian research programs, the following numbers of seals are planned to be caught under special permits for scientific purposes in 2008:

Area/species/category	Russia	Norway
Barents Sea / White Sea		

Whelping grounds

Adult breeding harp seal females	500	0
Harp seal pups	500	0

Outside breeding period

Harp seals of any age and sex	2300	0
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Greenland Sea*

Whelping grounds

Adult breeding harp seal females	0	100
Harp seal pups	0	100
Adult breeding hooded seal females	0	100
Hooded seal pups	0	100

Outside breeding grounds

Harp seals of any age and sex	0	100
Hooded seals of any age and sex	0	200

6. APPROVAL OF REPORT

The English version of the Working Group report was approved by the members on 25 October 2007.

PROTOKOLL

FRA MØTET I DET PERMANENTE UTVALG FOR FORVALTNINGS- OG KONTROLLSPØRSMÅL PÅ FISKERISEKTOREN I MURMANSK 3. – 7. SEPTEMBER OG 15. OKTOBER 2007.

På den 22. sesjon i Den blandete norsk- russiske fiskerikommisjon, jfr. protokollen punkt 11.2, opprettet partene Det permanente utvalg for forvaltnings- og kontrollspørsmål på fiskerisektoren.

Partenes delegasjoner fremgår av Vedlegg 1.

Møtet ble avholdt i henhold til sakliste, Vedlegg 2.

1. Åpning av møtet.

Lederen av den norske delegasjonen Lisbeth W. Plassa og lederen av den russiske delegasjonen Vasilij Krasovskij åpnet møtet.

2. Godkjenning av dagsorden.

Etter en diskusjon ble dagsorden godkjent.

3. Informasjon om ekspertgruppen for analyse av informasjon om overfiske av torsche- og hysekvotene i Barents- og Norskehavet.

Partene konstaterte at den norsk-russiske ekspertgruppen for analyse av informasjon om overfiske av torsche- og hysekvotene i Barents- og Norskehavet har avholdt to møter i 2007. Resultatet av denne gruppens arbeid er fremlagt for formennene i Den blandete norsk-russiske fiskerikommisjon.

4. Diskusjon av spørsmålet om nødvendigheten av å innføre tillegg til og endringer i Memorandum om kontroll.

I samsvar med punkt 12.4 i protokollen fra 35. sesjon i Den blandete norsk-russiske fiskerikommisjon behandlet partene spørsmålet om nødvendigheten av å innføre tillegg til og endringer i Memorandum om samarbeidsordninger for kontroll mellom det norske Fiskeridirektoratet, den norske Kystvakten, Direktoratet for det føderale tjeneste for veterinær- og fytosanitære tilsyn for Murmansk fylke og Grenseadministrasjonen”. Partene

kom til den konklusjon, at enkelte punkter i Memorandumet er foreldet og var enige om å foreta endringer og tillegg.

I forbindelse med opprettelse av en statlig fiskerikomité for Den russiske føderasjon var partene enige om å utsette videre behandling av dette punktet til neste møte i Det permanente utvalg.

5. Organisering av samarbeidet om gjennomføring av kontrollvirksomhet og tidspunkter for gjennomføring av denne i Det tilstøtende området i Barentshavet.

Representanten for Grenseadministrasjonen i Murmansk fylke og Sjef Kystvaktskvadron Nord informerte om samarbeidet om gjennomføring av kontrolltiltak i Det tilstøtende området i Barentshavet, gjennomført i perioden fra 15.-21. mars og fra 27. april til 4. mai 2007.

På bakgrunn av de positive resultatene som er blitt oppnådd, og den felles interessen partene har, ble partene enige om å gjennomføre lignende tiltak i det ovennevnte området med en hyppighet på minst to ganger per år. Tidspunkt for gjennomføringen vil bli fastsatt etter nærmere avtale, avhengig av fangstaktiviteten og værforholdene.

6. Utarbeidelse av prosedyre og mekanisme for innføring av nytt system for utstedelse av lisenser for fangst (fiske) av akvatiske bioressurser.

Den russiske part informerte den norske part om at den russiske part er klar til å underskrive protokollen til Overenskomsten mellom Kongeriket Norges regjering og SSSRs regjering om gjensidige forbindelser innen fiskerinæringen av 15. oktober 1976, en protokoll som fastsetter en forenklet prosedyre for utstedelse av lisenser. Den norske part fikk overlevert et forslag til nevnte protokoll.

Den norske part viste til at denne saken skal behandles innen rammen av Den blandete norsk-russiske fiskerikommisjon.

7. Utarbeidelse av felles regler for utfylling av rapporteringsskjema for landet kvantum (fangst) fra norske og russiske fartøy.

Den norske part informerte om, at på grunnlag av punkt 4 i protokollen fra 35. sesjon i Den blandete norsk-russiske fiskerikommisjon, skal landingsinformasjon baseres på kvanta av førstegangslandinger i havner.

Den russiske part informerte at utfylling av Tabell VI, som er en del av det rapporteringsskjemaet som overleveres til Kommisjonen, er meget komplisert. Problemet består i å identifisere andregangslandinger i det statistiske materialet om landinger man mottar fra andre land på en slik måte at man unngår dobbeltregistrering av landet fangst. Den russiske part informerte om, at innføringen av havnestatskontroll i 2007 for fremtiden vil forenkle oversendelsen av rapporteringsskjema. Den russiske part uttrykte ønske om å få en statistikk over landinger av fiskeprodukter som videresendes til tredjeland.

Den norske part har påtatt seg ansvaret for utarbeidelsen av et forslag til et nytt format for oversendelse av statistisk materiale om russiske førstegangslandinger i Norge. Et slikt nytt format vil gi mulighet til å oversende mer detaljerte statistiske data over landinger på månedlig basis.

Partene var enige om å endre benevnelsen i tabell VI fra "*Fangst av flaggstatens fartøy ved fiske i ICES-område I, IIA og IIB, landet i tredje land. Fangst i tonn rundvekt.*" til "*Fangst fra flaggstatens fartøy ved fiske i ICES-område I, IIA og IIB, førstegangslanding i alle andre land enn flaggstaten. Fangst i tonn rundvekt*", jfr. Vedlegg 3.

8. Gjenopptakelse av arbeidet i arbeidsgruppen for analyse og sammenstilling av informasjon på fartøynivå med det formål å avdekke mulige overtredelser av fiskerilovgivningen.

Partene var enige om at møtet i arbeidsgruppen for analyse skal finne sted i Murmansk i uke 44 i 2007.

Den russiske part foreslo, som en del av det forberedende arbeidet, å utarbeide en oversikt over de spørsmål som skal behandles i møtet i arbeidsgruppen for analyse og sammenstilling av informasjon på fartøynivå.

9. Diskusjon om spørsmålet om utveksling av satellittsporingsdata på russiske og norske fartøy i alle områdene i Barents- og Norskehavet (ICES I og II).

Med henvisning til punkt 12.6 i protokollen fra den 35. sesjon i Den blandete norsk-russiske fiskerikommisjon ble pilotprosjektet gjennomført.

Partene var enige om at pilotprosjektet for utveksling av satellittsporingsdata er blitt fullført på en tilfredsstillende måte. Alle de oppgaver som var blitt gitt til arbeidsgruppen av tekniske spesialister i forbindelse med revisjon av "Agreed Record of Conclusions between Norway and Russia on Issues related to Satellite Based Vessel Monitoring Systems" er blitt løst.

Partene var enige om at en teknisk sett er rede til å starte en slik utveksling på permanent basis etter at offisielle prosedyrer er gjennomført og beslutning er fattet.

10. Fortsettelse av arbeidet med fastsettelse av enhetlige omregningsfaktorer.

Partene viste til punkt 12.9 i protokollen fra den 35. sesjon i Den blandete norsk-russiske fiskerikommisjon og til møtet i arbeidsgruppen i Bergen fra 20. til 22. februar 2007, hvor det ble oppnådd enighet om en plan for det videre arbeidet, som omfatter et program for prøvetaking for fastsettelse av omregningsfaktorer for produkter av torsk og hyse i 2007 - 2008.

Arbeidsgruppens deltakere var enige om at utarbeidelse av en modifisert felles norsk-russisk metodikk for fastsettelse av omregningsfaktorer og en instruks for sløying ikke skal stå i veien for arbeidet med innsamling av nye data på torsk og hyse. Innen ny metodikk er utarbeidet skal gjeldende metodikk benyttes.

Arbeidsgruppens deltakere ble enige om organisasjonsmessige spørsmål i forbindelse med gjennomføring av nasjonale og felles forskningstokt. I 2007 vil det felles toktet finne sted i oktober/november på en norsk torsketråler.

Arbeidsgruppen vil, etter avsluttet forskningstokt, utarbeide en felles rapport om det arbeid som er utført og vil avholde et møte hvor ekspertene vil diskutere forskningsresultatene, samt en mulig revisjon av den felles norsk-russiske metodikken for fastsettelse av omregningsfaktorer. Dette møtet skal avholdes innen utgangen av 2007.

Den russiske part bemerket, at det i løpet av 2007 er blitt gjennomført en rekke russiske undersøkelser for å fastsette omregningsfaktorer.

Arbeidsgruppen for eksperter og tekniske spesialister vil i 2008 utarbeide felles forslag til fastsettelse av omregningsfaktorer hvor man tar hensyn til resultatene av nasjonal og felles forskning.

11. Informasjon om resultater fra undersøkelser av overtredelser av fiskerilovgivningen fra russiske fiskefartøys side i det området som reguleres av Kommisjonen, basert på fremlagt materiale fra den norske part, og om de tiltak som er truffet i den forbindelse.

Den russiske part informerte den norske part om resultatene fra undersøkelser av overtredelser av fiskerilovgivningen fra russiske fiskefartøys side i det området som reguleres av Kommisjonen, basert på fremlagt materiale fra den norske part, og om de tiltak som er truffet i den forbindelse.

Partene ble enige om å fortsette praksisen med gjensidig fremleggelse av materiale i forbindelse med mulige overtredelser av fiskerilovgivningen begått av fiskefartøy for gjennomgåelse av dette materialet for å treffe nødvendige tiltak i henhold til partenes regelverk.

12. Neste møte.

Neste møte i Det permanente utvalg avholdes i Norge. Tid og sted vil bli fastsatt senere.

13. Eventuelt.

13.1 Elektronisk rapportering for fiskefartøy.

Den norske part viste til punkt 12.6 i protokollen fra den 35. sesjon i Den blandete norsk-russiske kommisjonen.

Den norske part viste til pågående internasjonale prosesser hvor elektronisk rapportering spiller en viktig rolle.

Den norske part foreslo at ekspertarbeidsgruppen skal fortsette sitt arbeid med det formål å utarbeide forslag til en mulig uttestingsordning for elektronisk rapporteringssystem (ERS), og foreslår at neste møte i arbeidsgruppen blir holdt i Bergen innen utgangen av januar 2008.

Den russiske part informerte om at et tilsvarende elektronisk rapporteringssystem er under utarbeidelse i Russland, og understreket, at per i dag mangler Russland juridisk grunnlag for innføring av et slikt rapporteringssystem. Før dette arbeidet er slutført, anser den russiske part det for tidlig å arrangere et møte i arbeidsgruppen.

Murmansk, 15. oktober 2007

For de norske representantene

For de russiske representantene

Lisbeth W. Plassa

Vasilij Krasovskij

**DELTAKERLISTE FRA MØTET I DET PERMANENTE UTVALG FOR
FORVALTNINGS- OG KONTROLLSPØRSMÅL PÅ FISKERISEKTOREN I
MURMANSK 3. – 7. SEPTEMBER OG 15. OKTOBER 2007.**

Den norske delegasjonen:

1. Lisbeth W. Plassa, delegasjonsleder, seksjonssjef, Reguleringsseksjonen, Ressursavdelingen, Fiskeridirektoratet
2. Steve Olsen, sjef Kystvaktskvadron Nord
3. Einar Ellingsen, seksjonssjef, Kontrollseksjonen, Ressursavdelingen, Fiskeridirektoratet
4. Hanne Østgård, seniorrådgiver, Reguleringsseksjonen, Ressursavdelingen, Fiskeridirektoratet (3. - 7. september)
5. Synnøve Liabø, rådgiver, Reguleringsseksjonen, Ressursavdelingen, Fiskeridirektoratet
6. Ingmund Fladaas, tolk

Den russiske delegasjonen:

1. Vasilij Krasovskij, delegasjonsleder, leder for Rosselkhoznadzor i Murmansk fylke
2. Mikhail Mamonov, visedirektør i det russiske Landbruksministeriets Fiskeridepartement (3. - 7. september)
3. Igor Doroschuk, viseavdelingsleder i det russiske Landbruksministeriets Fiskeridepartement (3. - 7. september)
4. Valentin Balashov, sjef for det regionale føderale Fiskeribyråets Barents- og Kvitsjøadministrasjon (3. - 7. september)
5. Svetlana Nazarova, ledende spesialist ved det føderale Fiskeribyrået (3. - 7. september)
6. Darja Pedich, fungerende sjef for det regionale føderale Fiskeribyråets Barents- og Kvitsjøadministrasjon
7. Nina Javdoschuk, visesjef FGU Murmanrybvod (3. - 7. september)
8. Sergej Nekrasov, representant for GMI PS FSB (3. - 7. september)
9. Victor Rozhnov, leder for Inspeksjonstjenesten (3. - 7. september)
10. Igor Polvaljukhin, ledende spesialist for Rosselkhoznadzor i Murmansk fylke
11. Jevgenij Jedemskij, ledende spesialist for Rosselkhoznadzor i Murmansk fylke (3. - 7. september)
12. Vjacheslav Semenas, sjef for Murmansk FMC
13. Aleksander Borisov, spesialist ved Murmansk FMC
14. Marina Sytova, representant for "VNIRO" (3. - 7. september)
15. Jevgenij Shamray, representant for "PINRO"
16. Sergej Kljushev, det russiske Utenriksdepartementets representant i Murmansk
17. Aleksandr V. Sosov, sjef for kystvaktavdelingen i FSB i Murmansk (15. oktober)
18. Sergej Balyabo avdelingsleder, Rosselkhoznadzors direktorat (15. oktober)
19. Svetlana Kornilova, tolk (3. - 7. september)
20. Victoria Jegochina, tolk (15. oktober)

**AGENDA FRA MØTET I DET PERMANENTE UTVALG FOR
FORVALTNINGS- OG KONTROLLSPØRSMÅL PÅ FISKERISEKTOREN
MURMANSK 3. – 7. SEPTEMBER OG 15. OKTOBER 2007.**

1. Åpning av møtet.
2. Godkjenning av dagsorden.
3. Informasjon om ekspertgruppen for analyse av informasjon om overfiske av torske- og hysekvotene i Barents- og Norskehavet.
4. Diskusjon av spørsmålet om nødvendigheten av å innføre tillegg til og endringer i Memorandum om kontroll.
5. Organisering av samarbeidet om gjennomføring av kontrollvirksomhet og tidspunkter for gjennomføring av disse i Det tilstøtende området i Barentshavet.
6. Utarbeidelse av prosedyre og mekanisme for innføring av nytt system for utstedelse av lisenser for fangst (fiske) av akvatiske bioressurser.
7. Utarbeidelse av felles regler for utfylling av rapporteringsskjema for landet kvantum (fangst) fra norske og russiske fartøy.
8. Gjenopptakelse av arbeidet i arbeidsgruppen for analyse og sammenstilling av informasjon på fartøynivå med det formål å avdekke mulige overtredelser av fiskerilovgivningen.
9. Diskusjon om spørsmålet om utveksling av satellittsporingsdata på russiske og norske fartøy i alle områdene i Barents- og Norskehavet (ICES I og II).
10. Fortsettelse av arbeidet med fastsettelse av enhetlige omregningsfaktorer.
11. Informasjon om resultater fra undersøkelser av overtredelser av fiskerilovgivningen fra russiske fiskefartøys side i det området som reguleres av Kommisjonen, basert på fremlagt materiale fra den norske part, og om de tiltak som er truffet i den forbindelse.
12. Neste møte.
13. Eventuelt.
 - 13.1 Elektronisk rapportering for fiskefartøy.

VEDLEGG 3

TABLE VI FANGST FRA FLAGGSTATENS FARTØY VED FISKE I ICES-OMRÅDENE I, IIA og IIB, FØRSTEGANGSLANDING I ALLE ANDRE LAND ENN FLAGGSTATEN. FANGST I TONN RUNDVEKT.							
LAND NORGE ÅR 2006 DATO 25.10.2007 PERIODE: 01.01-31.12.2006							
		NORSKE FARTØYS FANGST FRA ICES OMRÅDENE I, IIA og IIB LANDET I:¹⁾					
		DANMARK	FÆRØYENE	RUSSLAND	ISLAND	ANDRE	SUM
FISKESLAG		tonn	tonn	tonn	tonn	tonn	tonn
TORSK							
HYSE							
SEI							
BLÅKVEITE							
STEINBIT							
UER							
FLYNDRE							
REKER							
LODDE							
SILD							
MAKRELL							
KOLMULE							
POLARTORSK							
VASSILD							
ANNET							
SUM							

¹⁾ Ved behov kan man spesifisere fangst landet i andre land i tabellen

**JOINT RUSSIAN – NORWEGIAN SCIENTIFIC RESEARCH PROGRAM ON
LIVING MARINE RESOURCES IN 2008****Contents**

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1. Planning and coordination of investigations and submitting of results

This program contains the investigations to be carried out in 2008 by Norway and Russia within the frames of the bilateral cooperation between the Norwegian and the Russian Parties. The program is in accordance with the national research programmes.

The program envisages broadening of research on the assessment of cod and haddock stocks. Conventional methods based on trawl and acoustic surveys, cpue, and catch statistics will be complemented with research on postspawning and feeding migrations using tagging, data from satellite synoptical monitoring of the environment, fleet distribution and daily catch reports in the years to come.

Planning, coordination, accomplishment of the investigations, exchange of specialists, data and results will be settled between the institutes involved.

Scientists and specialists from PINRO, VNIRO and IMR will meet in Tromsø, Norway 4-7 March 2008, to discuss joint research programmes, results from surveys and investigations in 2007/2008 and to coordinate survey plans for the rest of 2008. Missing names of vessels and time periods for surveys in this report will be agreed by correspondence, latest by the March meeting. Future plans for surveys and methodology for preparing biological and acoustic data will be discussed and coordinated. Urgent information according to surveys carried out before the meeting in March will be exchanged by correspondence.

By October 2007, 3 reports have been issued in the Joint IMR-PINRO report series.

A preliminary program for the planned surveys and cooperation for 2008 is presented below.

2. Investigations on fish and shrimp stocks, including stock size, structure, and distribution

IMR and PINRO will continue the co-operation on the monitoring of the most important commercial fish and shrimp stocks, according to the Program listed below. The work will also include continued co-operative research on by-catch of juvenile fish in the shrimp fishery. The parties will exchange primary information during joint investigations according to agreed formats.

Norwegian investigations

Nation:	Norway	Survey title:	Acoustic survey for prespawning capelin
Organisation:	IMR	Vessel:	R/V Libas R/V Eros, and possibly a third vessel
Time period:	February - March	Secondary species:	Herring
Target species:	Capelin		
Area:	Russian Exclusive Economic Zone and Norwegian Exclusive Economic Zone		
Purpose:	Methodological investigations, with aim to test the feasibility of acoustic measurements of capelin approaching the coast for spawning		
Reported to:	Joint Report Series PINRO/IMR; ICES AFWG in 2008		
Comment:	A similar survey is planned on the Russian side, but it is not finally decided whether this survey will be carried out. PINRO will inform IMR about this decision as soon as possible, and cooperation will be established		

Nation:	Norway	Survey title:	Herring spawning area
Organisation:	IMR		
Time period:	February	Vessel:	Hired commercial fishing vessel
Target species:	Herring	Secondary species:	
Area:	Herring spawning areas off Norwegian coast from 58°-63°N		
Purpose:	Spawning migration and behaviour		
Reported to:	Internal IMR survey report WGNPBW 2008		

Nation:	Norway	Survey title:	Young pelagic Greenland halibut
Organisation:	IMR		
Time period:	July-August	Vessel:	Hired commercial fishing vessel
Target species:	Greenland halibut	Secondary species:	<i>Sebastes mentella</i> , <i>S. marinus</i> ,
Area:	Barents Sea, north and east of Spitsbergen		
Purpose:	Distribution of young Greenland halibut		
Reported to:	Internal IMR survey report, ICES AFWG 2008		
Comment:	<i>It is of critical importance that both parties are given access to the other party's EEZ</i>		

Nation:	Norway	Survey title:	DST tagging experiment Greenland halibut
Organisation:	IMR		
Time period:	May	Vessel:	Hired long-liner
Target species:	Greenland halibut	Secondary species:	
Area:	68°N - 80°N		
Purpose:	Tagging survey and fishing experiments		
Reported to:	Internal IMR survey report, ICES AFWG 2008		

Nation:	Norway	Survey title:	Adult pelagic Greenland halibut
Organisation:	IMR		
Time period:	August - September	Vessel:	Hired trawler
Target species:	Greenland halibut	Secondary species:	<i>S. marinus</i> , <i>Sebastes mentella</i>
Area:	68°N - 75°N, Continental Slope and Norwegian Sea		
Purpose:	Trawl survey		
Reported to:	Internal IMR survey report, ICES AFWG 2008		

Nation:	Norway	Survey title:	Cod spawning stock
Organisation:	IMR		
Time period:	March-April	Vessel:	R/V Johan Hjort
Target species:	Cod	Secondary species:	Haddock, Saithe
Area:	Spawning areas Troms – Lofoten		
Purpose:	Acoustic survey of the North East Arctic Cod spawning stock. Investigations on maturity, fecundity and egg abundance.		
Reported to:	Internal IMR survey report, ICES AFWG 2008		

Nation:	Norway	Survey title:	Cod tagging experiments, capelin observations
Organisation:	IMR - VNIRO		
Time period:	March - April	Vessel:	Coastal purse seiner
Target species:	Cod, capelin	Secondary species:	
Area:	Northern Norwegian coast		
Purpose:	Cod tagging (ref. IMR-VNIRO MoU, Oct 2007), capelin recordings		
Reported to:	Internal IMR report, VNIRO, ICES.		

Nation:	Norway	Survey title:	Herring larvae
Organisation:	IMR		
Time period:	April	Vessel:	R/V Håkon Mosby
Target species:	Herring	Secondary species:	Saithe
Area:	Norwegian shelf areas from Karmøy to Tromsø		
Purpose:	Distribution and abundance of herring larvae		
Reported to:	Internal IMR survey report, WGNPBW 2008		

Nation:	Norway	Survey title:	Norwegian Sea survey
Organisation:	IMR		
Time period:	May	Vessel:	R/V G.O. Sars
Target species:	Herring, Blue whiting	Secondary species:	Zooplankton
Area:	Norwegian Sea		
Purpose:	Acoustic abundance estimation of pelagic fish and plankton, hydrography		
Reported to:	Internal IMR survey report, WGNPBW 2008, ICES PGNAPES 2008		

Nation:	Norway	Survey title:	Bottom trawl survey Greenland halibut Pelagic trawl survey <i>Sebastes mentelle</i>
Organisation:	IMR		
Time period:	August-September	Vessel:	1 hired commercial vessel
Target species:	Greenland halibut	Secondary species:	<i>S. marinus</i> , <i>Sebastes mentella</i>
Area:	68°N - 80°N, 400 – 1500 meter depth		
Purpose:	Bottom trawl survey with fixed trawl stations		
Reported to:	Internal IMR survey report, ICES AFWG 2008		

Nation:	Norway	Survey title:	Fjord and coastal ecosystem survey
Organisation:	IMR		
Time period:	Oktober-November	Vessel:	R/V "Johan Hjort"
Target species:	November-December Saithe, coastal cod, 0-group herring, sprat	Secondary species:	R/V H. Mosby Haddock, <i>Sebastes marinus</i>
Area:	North Norwegian fjord and coastal areas from Varanger to Skagerrak.		
Purpose:	Acoustic and trawl abundance estimation of saithe, coastal cod and other groundfish species. Acoustic abundance estimation of 0-group herring. Environmental investigations		
Reported to:	Internal IMR survey report, WBNPBW 2008, AFWG 2008		

Nation:	Norway	Survey title:	Herring wintering area
Organisation:	IMR		
Time period:	November-December	Vessel:	R/V G O Sars
Target species:	Herring	Secondary species:	
Area:	Vestfjorden and shelf areas outside Lofoten-Vesterålen		
Purpose:	Acoustic abundance estimation and distribution of herring		
Reported to:	Internal IMR survey report, WGNPBW 2008		

Nation:	Norway	Survey title:	Tagging young Greenland halibut
Organisation:	IMR		
Time period:	July-August	Vessel:	Hired vessel
Target species:	Greenland halibut	Secondary species:	
Area:	Spitsbergen area		
Purpose:	Tagging of Greenland halibut		
Reported to:	Internal IMR report, AFWG 2008		

Nation:	Norway	Survey title:	Greenland halibut absolute abundance estimation
Organisation:	IMR		
Time period:	April	Vessel:	Hired commercial trawler
Target species:	Greenland halibut	Secondary species:	<i>Sebastes sp.</i>
Area:	Continental slope of the Barents Sea		
Purpose:	Absolute abundance estimation		
Reported to:	Internal IMR report, AFWG2009		

Nation:	Norway	Survey title:	Survey Strategy NSS herring
Organisation:	IMR		
Time period:	November - December	Vessel:	Hired commercial vessel
Target species:	Herring	Secondary species:	
Area:	Norwegian Sea		
Purpose:	Survey strategy/Absolute abundance estimation		
Reported to:	Internal IMR report, NPBWWG2009		

Nation:	Norway	Survey title:	Sonar measurements
Organisation:	IMR		
Time period:	November-December	Vessel:	Hired commercial vessel
Target species:	herring	Secondary species:	
Area:	Norwegian Sea		
Purpose:	Acoustic measurements		
Reported to:	Internal IMR report, NPBWWG2009		

In addition to these surveys, Norway will conduct the following surveys in connection with the International Polar year (IPY):

Nation:	Norway	Survey title:	NESSAR Norwegian Sea
Organisation:	IMR		
Time period:	May-June	Vessel:	R/V Johan Hjort
Target species:	Herring	Secondary species:	Blue whiting:
Area:	Polar front area of the Norwegian Sea		
Purpose:	Environmental studies in frontal areas		
Reported to:	IPY framework		

Nation:	Norway	Survey title:	NESSAR Barents Sea
Organisation:	IMR/University of Tromsø		
Time period:	April-May	Vessel:	R/V Jan Mayen
Target species:	Capelin	Secondary species:	
Area:	Polar front area of the Barents Sea		
Purpose:	Environmental studies in frontal areas		
Reported to:	IPY framework		

Russian investigations

Nation:	Russia	Survey title:	Collection o data on CPUE, biological data on species, sex and age composition Greenland halibut catches for the stock assessment
Organization:	PINRO		
Time period:	January-March April-June	Vessel:	2 trawlers
Target species:	Greenland halibut	Secondary species:	Cod, haddock, catfishes, redfishes (<i>S. mentella</i> , <i>S. marinus</i>), other demersal fish
Area:	Exclusive Economic Zone of Norway		
Purpose:	Study of spatial and temporal distribution of concentrations; study of trophic links between Greenland halibut and other species; study of seasonal dynamics of catches, investigation of Greenland halibut migration paths, timing and distance using tagging; investigation of Greenland halibut behaviour in the trawl mouth area with the use of deepwater video-acoustic complex.		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2008 and 2009		

Nation:	Russia	Survey title:	Collection o data on CPUE, biological data on species, sex and age composition Greenland halibut catches for the stock assessment
Organization:	PINRO		
Time period:	January-March April-June	Vessel:	2 trawlers
Target species:	Greenland halibut	Secondary species:	Cod, haddock, catfishes, redfishes (<i>S. mentella</i> , <i>S. marinus</i>),, other demersal fish
Area:	Spitsbergen area, Grey zone		
Purpose:	Study of spatial and temporal distribution of concentrations; study of trophic links between Greenland halibut and other species; study of seasonal dynamics of catches, investigation of Greenland halibut migration paths, timing and distance using tagging; investigation of Greenland halibut behaviour in the trawl mouth area with the use of deepwater video-acoustic complex		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2008 and 2009		

Nation:	Russia	Survey title:	Collection o data on CPUE, biological data on species, sex and age composition Greenland halibut catches for the stock assessment
Organisation:	PINRO		
Time period:	July-September October-December	Vessel:	2 trawlers
Target species:	Greenland halibut	Secondary species:	Cod, haddock, catfishes, redfishes (<i>S. mentella</i> , <i>S. marinus</i>), other demersal fish
Area:	Exclusive Economic Zone of Norway		
Purpose:	Study of spatial and temporal distribution of concentrations; study of trophic links between Greenland halibut and other species; study of seasonal dynamics of catches, investigation of Greenland halibut migration paths, timing and distance using tagging; investigation of Greenland halibut behaviour in the trawl mouth area with the use of deepwater video-acoustic complex.		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2009		

Nation:	Russia	Survey title:	Collection o data on CPUE, biological data on species, sex and age composition Greenland halibut catches for the stock assessment
Organization:	PINRO		
Time period:	July-September October-December	Vessel:	2 trawlers
Target species:	Greenland halibut	Secondary species:	Cod, haddock, catfishes, redfishes (<i>S. mentella</i> , <i>S. marinus</i>), other demersal fish
Area:	Spitsbergen area, Grey zone		
Purpose:	Study of spatial and temporal distribution of concentrations; study of trophic links between Greenland halibut and other species; study of seasonal dynamics of catches, investigation of Greenland halibut migration paths, timing and distance using tagging; investigation of Greenland halibut behaviour in the trawl mouth area with the use of deepwater video-acoustic complex.		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2009		

Nation:	Russia	Survey title:	Refinement of methods for Greenland halibut stock assessment by long-line, CPUE
Organization:	PINRO		
Time period:	January-December	Vessel:	1 long-liner and 1 trawler
Target species:	Greenland halibut	Secondary species:	Cod, haddock, catfishes
Area:	Spitsbergen area, Grey zone		
Purpose:	Investigation into the stock status, year-to-year dynamics of catch per unit effort, comparative fishing efficiency "long-line – trawl"		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2008 and 2009		

Nation:	Russia	Survey title:	Evaluation of resources for long-line fishery. Investigation of species and sex-size compositions in long-line and trawl catches.
Organization:	PINRO		
Time period:	January-December	Vessel:	2 long-liners
Target species:	Cod, haddock	Secondary species:	Catfishes, long rough dab, redfishes (<i>S. mentella</i> , <i>S. marinus</i>), Greenland halibut and other
Area:	Exclusive Economic Zone of Norway and Spitsbergen area, Exclusive Economic Zone of RF and "Grey zone"		
Purpose:	Elaboration of recommendations on effective use of resources for long-line fishery		
Reported to:	Survey report for internal use; ICES AFWG in 2008 and 2009		

Nation:	Russia	Survey title:	Complex investigation of stocks of commercial species based on modern research technology.
Organization:	VNIRO		
Time period:	January-December	Vessel:	5 vessels, trawl and long-line
Target species:	Cod, haddock	Secondary species:	Catfishes, long rough dab, halibut and other species
Area:	Exclusive Economic Zone of RF and Norway, "Grey zone", Loophole, Spitsbergen area		
Purpose:	Complex investigation of stocks of commercial species based on modern research technology. Tagging experiments (ref. IMR- VNIRO MoU, Oct 2007). Collection of CPUE data, biological state during wintering and spawning, species composition of catches, including histological data.		
Reported to:	Survey report for internal use; ICES AFWG in 2007 and 2008		

Nation:	Russia	Survey title:	Assessment of stocks and distribution of commercial species of living marine resources. Collection of CPUE data
Organization:	PINRO		
Time period:	January-March April-June July-September October-December	Vessel:	R/V "Vilnjus" and 4 trawlers
Target species:	Cod, haddock	Secondary species:	Catfishes, long rough dab, saithe
Area:	Exclusive Economic Zone of RF and "Grey zone", inland sea waters and territorial sea of the Russian Federation		
Purpose:	Collection of CPUE data, biological state during wintering and spawning, species composition of catches, cod predation on their own juveniles and other fish species and invertebrates, discards of undersized cod and haddock. Study of intra-species structure using genetic methods, quantitative estimation of bycatch of undersized fish.		
Reported to:	Survey report for internal use; ICES AFWG in 2008 and 2009		

Nation:	Russia	Survey title:	Assessment of stocks and distribution of commercial species of living marine resources. Collection of CPUE data
Organization:	PINRO		
Time period:	January-March April-June July-September October-December	Vessel:	R/V "Vilnjus" and 4 trawlers
Target species:	Cod, haddock,	Secondary species:	Catfishes, long rough dab, saithe
Area:	Exclusive Economic Zone of Norway, "Grey zone", "Loophole" and Spitsbergen area		
Purpose:	Collection of CPUE data, biological state during wintering and spawning, species composition of catches, cod predation on their own juveniles and other fish species and invertebrates, discards of undersized cod and haddock. Study of intra-species structure using genetic methods, quantitative estimation of bycatch of undersized fish.		
Reported to:	For internal use by PINRO; ICES AFWG in 2008 and 2009		

Nation:	Russia	Survey title:	Survey for haddock, saithe and other demersal species
Organization:	PINRO		
Time period:	May-June	Vessel:	R/V "Fridtjof Nansen" or R/V "Smolensk", R/V "Professor Boiko"
Target species:	Haddock, saithe, cod	Secondary species:	Redfish, northern wolfish, spotted catfish, long rough dab
Area:	The Barents Sea basin including Exclusive Economic Zone of Norway, "Grey zone", Exclusive Economic Zone of RF, internal sea waters and territorial sea of RF		
Purpose:	Assessment of immature part of the haddock stock, quantitative estimation of saithe migrating for feeding from the EEZ of Norway to EEZ of RF and the "Grey Zone"; oceanography, investigation of possibilities and conditions of summer and autumn fishery for haddock and saithe in the EEZ of RF		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2009		

Nation:	Russia	Survey title:	Testing of methods to assess juveniles of saithe, cod, haddock and other demersal species in Murman fjords
Organization:	PINRO		
Time period:	August-September	Vessel:	1 trawler
Target species:	Cod, haddock, saithe	Secondary species:	Plaice, redfish (<i>Sebastes mentella</i>), long rough dab, northern wolfish, spotted catfish
Area:	The Barents Sea basin, Exclusive Economic Zone of RF including internal sea waters and territorial sea of RF		
Purpose:	Assessment of relative abundance of juvenile saithe, cod, haddock and other demersal species in Murman fjords, collection of data on biology, distribution and density of concentrations		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2009		

Nation:	Russia	Survey title:	Multispecies trawl-acoustic survey for estimation of juveniles and stock assessment of demersal fish in the Barents Sea and adjacent waters
Organization:	PINRO		
Time period:	October-December	Vessel:	R/V "Fridtjof Nansen", R/V "Smolensk"
Target species:	Cod, haddock, Greenland halibut	Secondary species:	Northern wolffish, spotted catfish, redfish (<i>S. mentella</i>), saithe, long rough dab
Area:	The Barents Sea basin, Exclusive Economic Zone of Norway, Spitsbergen area, "Grey zone", "Loophole", Exclusive Economic Zone of RF including internal sea waters and territorial sea of RF		
Purpose:	Evaluation of strength of yearclasses of cod and haddock at the stage of bottom juveniles, redfishes and other demersal fish; assessment of total and fishable stocks of cod, haddock, Greenland halibut, redfishes, catfishes, long rough dab and other fish species in the survey area; oceanography, estimation of zooplankton biomass; parasitologic and faunistic studies, study of "predator-prey" relations		
Reported to:	Survey report for internal use; ICES AFWG in 2009		

Nation:	Russia	Survey title:	Trawl-Acoustic survey for spawning concentrations of herring in the Norwegian Sea
Organization:	PINRO		
Time period:	February-March	Vessel:	2 rented vessels
Target species:	Herring	Secondary species:	
Area:	Norwegian Sea including areas under jurisdiction of foreign states, international waters		
Purpose:	Study of distribution and migration of spawning and post-spawning herring in the Norwegian Sea, collection of biological data on size-age composition and fecundity of fish.		
Reported to:	PINRO survey report for internal use; ICES WG NPBW in 2008		

Nation:	Russia	Survey title:	Delimitation of mackerel feeding concentrations; study of mackerel feeding migration in the Norwegian Sea in summer
Organization:	PINRO		
Time period:	May-September	Vessel:	2 rented vessels
Target species:	Mackerel	Secondary species:	Blue whiting, herring
Area:	Fishing zone of the Faroe Islands, open Norwegian Sea		
Purpose:	Study of mackerel feeding migration in the Norwegian Sea in summer and the effect of biotic and abiotic factors on spatial and temporal distribution of pelagic fish		
Reported to:	PINRO survey report for internal use; WG ICES		

Nation:	Russia	Survey title:	Complex aerial survey on the research into distribution and biomass assessment of feeding mackerel within the frames of international herring survey in the Barents and Norwegian seas (ecosystem survey)
Organization:	PINRO		
Time period:	July-August	Vessel:	1 research vessel of PINRO Airborne laboratory AN-26 "Arktika"
Target species:	Mackerel	Secondary species:	Herring, blue whiting, marine mammals, seabirds, chlorophyll, zooplankton, oceanographic parameters at the sea surface
Area:	Fishing zone of the Faroe Islands, open Norwegian Sea, exclusive Economic Zone of Norway, UK Fishery zone		
Purpose:	Distribution of feeding mackerel and other pelagic fish, approaches to assess biomass of feeding mackerel; abundance, distribution and species composition of marine mammals and seabirds; environmental parameters at the sea surface including identification of areas with high biological productivity		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2008, Planning Group on Ecosystem Surveys in the Pelagic Northeast Atlantic, Working Group on the Assessment of Mackerel, Horse Mackerel, Sardine and Anchovy (WGMHSA).		
Comment:	NEAFC Annual meeting.		

Nation:	Russia	Survey title:	Study of formation of herring concentrations
Organization:	PINRO		
Time period:	August-September	Vessel:	2 rented vessels
Target species:	Herring	Secondary species:	Blue whiting, saithe, mackerel
Area:	Norwegian Sea, Exclusive Economic Zone of Norway, Spitsbergen area, open sea		
Purpose:	Study of formation of herring concentrations during feeding period, herring distribution and behaviour in dependence on the environmental conditions, biological state and intensity of fishing. Collection of fisheries and biological data necessary for the stock assessment		
Reported to:	PINRO survey report for internal use; ICES WG NPBW in 2008		

Nation:	Russia	Survey title:	Improvement of a method to assess biomass of feeding mackerel
Organization:	VNIRO		
Time period:	June-July	Vessel:	2 rented vessels
Target species:	Mackerel	Secondary species:	Herring, blue whiting
Area:	Norwegian Sea, international waters		
Purpose:	Estimation of biomass of feeding mackerel in the international waters. Study of population structure of the mackerel stock		
Reported to:	VNIRO survey report for internal use; ICES WG in 2008		

Nation:	Russia	Survey title:	Estimation of biomass of spawning spring-spawning herring based on the methodology of synoptical monitoring
Organization:	VNIRO		
Time period:	January-March	Vessel:	1 rented vessel
Target species:	Herring	Secondary species:	Blue whiting, saithe, cod
Area:	Norwegian Sea, Norwegian EEZ		
Purpose:	Introduction of new methods of pelagic fish stocks assessments based on satellite monitoring of environment and fishery.		
Reported to:	VNIRO survey report for internal use; ICES WG in 2008		

Nation:	Russia	Survey title:	Trawl-acoustic survey for capelin spawning stock
Organization:	PINRO		
Time period:	January-March	Vessel:	1 rented vessel
Target species:	Capelin, herring	Secondary species:	
Area:	The Barents Sea basin including Exclusive Economic Zone of Norway, Exclusive Economic Zone of RF and "Grey zone", internal sea waters and territorial sea of RF		
Purpose:	Estimation of abundance and biomass of capelin from older age groups to control estimates of the capelin stock		
Reported to:	Joint Report Series PINRO/IMR; ICES AFWG in 2008		
Comment:			

Nation:	Russia	Survey title:	Study of distribution of capelin fishable concentrations
Organization:	PINRO		
Time period:	November-December	Vessel:	1 rented vessel
Target species:	Capelin	Secondary species:	Polar cod
Area:	The Barents Sea basin, Spitsbergen area, "Grey zone", "Loophole", Exclusive Economic Zone of RF, internal sea waters and territorial sea of RF		
Purpose:	Study of distribution of capelin fishable concentrations, migration routes and rates and conditions of formation of concentrations in dependence on biological state of the object and abiotic environmental factors.		
Reported to:	Survey report for internal use; ICES AFWG in 2008		

Nation:	Russia	Survey title:	International ecosystem survey of herring and blue whiting stocks in the Barents and Norwegian Seas
Organization:	PINRO		
Time period:	May-June (15 vessel/days)	Vessel:	Russian RV "F. Nansen" 5 foreign RVs
Target species:	Herring, blue whiting	Secondary species:	Other pelagic species
Area:	The Barents and Norwegian Seas, Exclusive Economic Zone of RF, "Grey zone", internal sea waters and territorial sea of RF		
Purpose:	Acoustic survey of the stocks, oceanography		
Reported to:	Survey report for internal use; ICES WG NPBW in 2008, ICES PGNAPES in 2008		

Nation:	Russia	Survey title:	Trawl-acoustic survey for redfish (<i>S. mentella</i>) of the Norwegian-Barents Sea population. Evaluation of strength of redfish yearclasses
Organization:	PINRO		
Time period:	April-May	Vessel:	R/V "Fridtjof Nansen" or R/V "Smolensk"
Target species:	Redfish (<i>Sebastes mentella</i>)	Secondary species:	Redfish (<i>S. marinus</i>), cod, haddock, northern wolffish, Greenland halibut
Area:	Exclusive Economic Zone of Norway and Spitsbergen area		
Purpose:	Study of distribution of redfish and other species; collection of biological data; evaluation of resources for fisheries through analysis and collection of statistical data on CPUE to enhance the database.		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2007 and 2008		

Joint investigations

Nation:	Norway/Russia	Survey title:	Joint Winter Survey
Organization:	PINRO/IMR		
Time period:	January-March	Vessel:	R/V Jan Mayen and R/V Johan Hjort
	January – March		R/V "Fridtjof Nansen" and R/V "Smolensk"
Target species:	Cod, Haddock, capelin, herring	Secondary species:	Redfish <i>Sebastes mentella</i> , <i>S. marinus</i> , Greenland halibut, catfishes
Area:	Exclusive Economic Zone of Russia and Exclusive Economic Zone of Norway		
Purpose:	Distribution and stock assessment, collection of biological samples. Multi-species interactions with focus on cod diet, oceanography and plankton		
Reported to:	Joint IMR/PINRO Report Series and ICES AFWG in 2008		

Nation:	Norway/Russia	Survey title:	Survey of blue whiting spawning areas
Organization:	PINRO/IMR		
Time period:	March-April	Vessel:	1 Norwegian hired vessel 1 Russian R/V
Target species:	Blue whiting	Secondary species:	Other pelagic species
Area:	To the west of British Islands		
Purpose:	Estimation of abundance and distribution of spawning blue whiting, oceanography, plankton, survey of the Rockall haddock, methods for acoustic survey		
Reported to:	Joint IMR/PINRO survey report for internal use; ICES WGNPBW in 2008, ICES PGNAPES in 2008		

Nation:	Russia	Survey title:	International ecosystem survey of herring and blue whiting stocks in Norwegian Sea
Organization:	PINRO		
Time period:	May - June (20 vessel/days)	Vessel:	RV "F. Nansen" R/V "G.O.Sars" 3 other RVs
Target species:	Herring, blue whiting	Secondary species:	Other pelagic species
Area:	The Norwegian Seas, Fishing zone of the Faroe Islands, international waters, Exclusive Economic Zone of Norway, UK fishery zone		
Purpose:	Acoustic survey of the stocks, oceanography		
Reported to:	Survey report for internal use; ICES WG NPBW in 2008, ICES PGNAPES in 2008		

Nation:	Russia	Survey title:	International trawl-acoustic survey for pelagic fish
Organization:	PINRO		
Time period:	June-August	Vessel:	1 Russian trawler
Target species:	Pelagic fish survey	Secondary species:	Herring Mackerel, blue whiting, other pelagic fish, marine mammals, seabirds, chlorophyll, zooplankton
Area:	The Norwegian Seas, Fishing zone of the Faroe Islands, international waters, Exclusive Economic Zone of Norway, UK fishery zone		
Purpose:	Stock assessment, delimitation of feeding concentrations, study of feeding migration and the effect of biotic and abiotic factors on spatial and temporal distribution of pelagic fish in summer in the Norwegian Sea; oceanographic and hydrobiological surveys		
Reported to:	Survey report for use at PINRO; ICES AFWG in 2008; NEAFC Annual meeting		
Comment:			

Nation:	Norway/Russia	Survey title:	Joint survey for feeding mackerel in the Norwegian Sea
Organization:	PINRO/IMR		
Time period:	15.07-06.08 June - August	Vessel:	2 vessels chartered by IMR 1 R/V "PINRO" and 2 chartered vessels Airborne laboratory AN-26, "Arktika"
Target species:	Mackerel	Secondary species:	herring, blue whiting Other pelagic fishes, marine mammals, seabirds, chlorophyll, zooplankton
Area:	The Norwegian Sea		
Purpose:	Distribution and approaches to assess biomass of feeding mackerel; abundance, distribution and species composition of marine mammals and seabirds; a complex of oceanographic and hydrobiological data, joint experimental and calibration works.		
Reported to:	Survey report for IMR and PINRO; ICES WG; NEAFC meeting		

Nation:	Norway/Russia	Survey title:	Joint ecosystem survey, autumn
Organization:	PINRO/IMR		
Time period:	August-September August-September August-September August-September	Vessel:	R/V "G.O Sars" R/V "Johan Hjort" R/V "Jan Mayen" R/V "Smolensk" R/V "Fridtjof Nansen" Airborne laboratory AN-26, "Arktika"
Target species:	Greenland halibut, redfishes, shrimp, herring, capelin, 0-group of different species	Secondary species:	Other pelagic and demersal species, benthic organisms, sea mammals and birds
Area:	The Norwegian Sea, Exclusive Economic Zone of Russia, "Grey zone", Exclusive Economic Zone of Norway, Loophole" area and area adjacent to Spitsbergen and territorial waters of the Russian Federation		
Purpose:	Abundance and distribution of Greenland halibut (including juveniles north and east of Spitsbergen), redfish <i>Sebastes mentella</i> , <i>Sebastes marinus</i> , shrimp, herring, capelin, polar cod, 0-group of different species. Oceanography, plankton, marine mammals, seabirds, species interactions, sampling for determining pollution levels.		
Reported to:	Joint IMR/PINRO Report Series; ICES WGNPBW in 2009; ACFM in autumn 2008		

3. Research program on Greenland Halibut

The Joint Russian-Norwegian Fisheries Commission at its 34th session (2005) requested scientists from Russia and Norway to develop a joint Russian-Norwegian research program for Greenland halibut aimed at improvement of its stock assessment methods and elaboration of optimal management strategy for this stock (Appendix 10 to the Protocol).

The content of the program was agreed at the Russian-Norwegian meeting of scientists in March 2006 and approved at the 35th session of the Joint Russian-Norwegian Fisheries Commission (Appendices 10 and 12 to the Protocol).

The program includes the following studies:

- improve the methods of ageing;
- improve methods of survey and aggregation of data from different surveys;
- make quantitative estimation of Greenland halibut stock who distribute in pelagic layers;
- investigate sexual dimorphism and effect of fisheries on population structure;
- improve methods of stock assessment;
- develop optimal long-term harvesting strategy.

The program is to be implemented in 2007-2009. Primary data and preliminary results will be presented at the ICES Arctic Fisheries Working Group. Final report on the program will be presented in 2010.

In summer-autumn 2008, PINRO plan to carry out trawl acoustic survey on Greenland halibut in the eastern part of the Barents Sea and the western part of the Kara Sea, in which the participation of Norwegian specialists are welcomed.

4. Red king crab (*Paralithodes camtschaticus*)

Based on the decisions of the 35th session of the Joint Russian-Norwegian Fisheries Commission and meeting of scientists in March, a joint Working Group on the red king crab was established.

The main aim of this Working Group is coordination of joint scientific research of the Atlantic population of the red king crab conducted by PINRO, VNIRO and IMR, as well as exchange of knowledge from national research programs. This working group will respond to requests from the Joint Russian-Norwegian Fisheries Commission.

The working group will meet at least once a year in the period of the traditional March meeting of scientists. A list of participants to the meetings of the Working Group will be made in accordance with the exact subject of each meeting. Scientists from other institutions suggested by PINRO, VNIRO and IMR may attend meetings of this WG.

The ongoing three-year program will be reported to the Commission in 2008.

Norwegian investigations

Nation:	Norway	Survey title:	Red king crab survey
Organisation:	IMR		
Time period:	August-September	Vessel:	Research vessel
Target species:	Red king crab	Secondary species:	
Area:	Fjords in Finnmark		
Purpose:	Abundance estimation and ecological investigations		
Reported to:	Internal IMR survey report. PINRO and VNIRO		

Nation:	Norway	Survey title:	Red king crab survey
Organisation:	IMR		
Time period:	September-October	Vessel:	Hired vessel
Target species:	Red king crab	Secondary species:	
Area:	Off the coast of Finnmark		
Purpose:	Abundance estimation and ecological investigations		
Reported to:	Internal IMR survey report. PINRO and VNIRO		

Nation:	Norway	Survey title:	Red king crab trial fishing
Organisation:	IMR		
Time period:	August-December	Vessel:	3 Hired vessels
Target species:	Red king crab	Secondary species:	
Area:	Fjords in Finnmark		
Purpose:	Methodological investigations		
Reported to:	Internal IMR survey report. PINRO and VNIRO		

Russian investigations:

Nation:	Russia	Survey title:	Research on the red king crab stock in the spawning period by trawl survey
Organization:	PINRO		
Time period:	April-May	Vessel:	1 medium-tonnage vessel
Target species:	Red king crab	Secondary species:	Snow crab <i>Opilio</i> , cod, haddock
Area:	The Barents Sea, Exclusive Economic Zone of RF, internal sea waters and territorial sea of RF		
Purpose:	Study of spatial distribution of the red king crab during moulting and spawning; collection of biological data (size, sex and age composition, eksoskeleton, etc.); crab tagging to study migration; underwater video.		
Reported to:	PINRO report for internal use		

Nation:	Russia	Survey title:	Stock assessment of the red king crab by trawl survey
Organization:	PINRO		
Time period:	August-September	Vessel:	1 medium-tonnage vessel
Target species:	Red king crab	Secondary species:	Snow crab <i>Opilio</i> , cod, haddock
Area:	The Barents and White seas, Exclusive Economic Zone of RF, internal sea waters and territorial sea of RF		
Purpose:	Collection of data for assessment of the total and fishable stock of the red king crab; study of the crab distribution in the period before commencement of its fishery; collection of biological data, crab tagging to study migration, underwater video..		
Reported to:	PINRO report for internal use. VNIRO		

Nation:	Russia	Survey title:	Red king crab trap survey
Organization:	VNIRO		
Time period:	January-February and September - December	Vessel:	5 vessels
Target species:	Red king crab	Secondary species:	
Area:	Exclusive Economic Zone, internal sea waters and territorial sea of the Russian Federation		
Purpose:	Study of the distribution of red king crab. Stock assessment. Trap survey.		
Reported to:	VNIRO report for internal use. PINRO		

Nation:	Russia	Survey title:	Estimation of trap's effective area and coefficient of catchability of trawl
Organization:	VNIRO		
Time period:	September-November	Vessel:	1 trawler and 2 vessel with traps
Target species:	Red king crab	Secondary species:	Demersal fish species
Area:	The Barents and White seas, Exclusive Economic Zone of RF, internal sea waters and territorial sea of RF		
Purpose:	The estimation of trap's effective area and coefficient of catchability of bottom trawl for the stock assessment of red king crab including parallel trap and trawl investigation and use of autonomous underwater video-computer recorder.		
Reported to:	VNIRO report for internal use.		

Nation:	Russia	Survey title:	Investigations aimed at elaboration of measures to decrease the red king crab by-catches in the trawl fishery for demersal fish.
Organization:	PINRO		
Time period:	August-November	Vessel:	1 trawler
Target species:	Red king crab	Secondary species:	Cod, haddock and other demersal fish species
Area:	The Barents and White seas, Exclusive Economic Zone of RF, internal sea waters and territorial sea of RF		
Purpose:	Search of means for minimization of the red king crab by-catches in fisheries for cod and haddock. Recommendation on improvement of trawl design.		
Reported to:	PINRO report for internal use.		

Nation:	Russia	Survey title:	SCUBA-diving survey of red king crab
Organization:	PINRO, VNIRO		
Time period:	March-April June August-September	Vessel:	2 vessels, boats SCUBA-divers
Target species:	Red king crab	Secondary species:	
Area:	Internal sea waters and territorial sea of the Russian Federation		
Purpose:	Collection of biological data (size, sex and age composition of aggregations and other data necessary for the stock assessment and estimation of TAC). Estimation of juvenile red king crab abundance.		
Reported to:	PINRO report for internal use.		

Nation:	Russia	Survey title:	Aquaculture of red king crab
Organization:	PINRO, VNIRO		
Time period:	January-December	Vessel:	2 vessels
Target species:	Red king crab	Secondary species:	
Area:	Exclusive Economic Zone, internal sea waters and territorial sea of the Russian Federation		
Purpose:	Collection of material for experimental works on the crab males rearing until optimal filling of the legs. Development of biotechniques for aquaculture of red king crab		
Reported to:	PINRO report for internal use.		

Nation:	Russia	Survey title:	Collection of data on CPUE. Biological sampling
Organization:	PINRO		
Time period:	January-December	Vessel:	10 vessels 10 vessels
Target species:	Red king crab	Secondary species:	
Area:	Exclusive Economic Zone, internal sea waters and territorial sea of the Russian Federation		
Purpose:	Collection of data on catch per unit effort, study of biology, abundance dynamics, migration, feeding, trophic links with local species and distribution of the crab. Evaluation of the red king crab effect on the benthos ecosystem.		
Reported to:	PINRO report for internal use.		

5. Fishing technology and selectivity of fishing gears

Research activity in these fields is carried out with the aim to develop:

- fishing gears that are more species and size selective and that have less negative impact on fish that escape the gear, and have less negative ecosystem effects in general.
- Improved survey gears and methodology

Norwegian investigations:

Nation:	Norway	Survey title:	Shrimp trawl selectivity
Organisation:	IMR		
Time period:	May	Vessel:	Hired vessel
Target species:	Shrimp	Secondary species:	
Area:	Barents sea		
Purpose:	Experiments with shrimp trawls		
Reported to:	Internal IMR survey report		

Nation:	Norway	Survey title:	Comparison of catch efficiency for pelagic and bottom trawls
Organisation:	IMR		
Time period:	August - December	Vessel:	Hired vessel
Target species:	Cod and Haddock	Secondary species:	Saithe
Area:	Barents Sea		
Purpose:	Trawl efficiency		
Reported to:	Internal IMR survey report		

Nation:	Norway	Survey title:	Development of trawl sampling gear
Organisation:	IMR		
Time period:	February	Vessel:	R/V "Johan Hjort" R/V "Jan Mayen"
Target species:	Cod, haddock	Secondary species:	saithe
Area:	Barents Sea		
Purpose:	Development of new survey trawl,		
Reported to:	Internal IMR survey report, ICES		

Nation:	Norway	Survey title:	Impact of bottom trawl on benthic habitats, experiments with pelagic trawl
Organisation:	IMR		
Time period:	October	Vessel:	R/V "G.O.Sars"
Target species:	Cod, haddock	Secondary species:	saithe
Area:	Barents Sea		
Purpose:	Impact of bottom trawl on benthic habitat, pelagic trawling		
Reported to:	Internal IMR survey report, EU report		

Russian investigations:

Nation:	Russia	Survey title:	Study of comparative fishing efficiency "trawl – long-line". Refinement of methods for Greenland halibut stock assessment
Organization:	PINRO		
Time period:	May-December	Vessel:	1 long-liner 1 trawler
Target species:	Greenland halibut, Cod, haddock	Secondary species:	Catfishes, skates
Area:	Exclusive Economic Zone of Norway and Spitsbergen area		
Purpose:	Collection of data to validate a method of trawl and long-line survey of Greenland halibut stocks		
Reported to:	PINRO survey report for internal use; ICES AFWG in 2009		

Nation:	Russia	Survey title:	Selectivity studies of new sorting systems
Organization:	PINRO		
Time period:	January -December	Vessel:	1 trawler
Target species:	Cod, haddock, Greenland halibut	Secondary species:	Saithe, northern wolffish, spotted catfish
Area:	Exclusive Economic Zone of the Russian Federation		
Purpose:	Evaluation of actual results of application of technical regulatory measures in the fishery for cod and haddock in areas with different regimes of their application, including midwater trawls.		
Reported to:	PINRO survey report for internal use. Joint Russian-Norwegian Fisheries Commission		

Nation:	Russia	Survey title:	Selectivity studies of new sorting systems
Organization:	PINRO		
Time period:	January -December	Vessel:	1 trawler
Target species:	Cod, haddock, Greenland halibut	Secondary species:	Saithe, northern wolffish, spotted catfish
Area:	The Barents Sea, Spitsbergen area, Exclusive Economic Zone of Norway		
Purpose:	Evaluation of actual results of application of technical regulatory measures in the fishery for cod and haddock in areas with different regimes of their application including midwater trawls.		
Reported to:	PINRO survey report for internal use, Joint Russian-Norwegian Fisheries Commission		

Nation:	Russia	Survey title:	Study of a possibility to use Danish seine
Organization:	PINRO		
Time period:	April -November	Vessel:	1 Danish seiner
Target species:	Cod	Secondary species:	Saithe, northern wolffish, spotted catfish, flatfishes
Area:	Exclusive Economic Zone of the Russian Federation, internal sea waters and territorial sea of RF		
Purpose:	Study of a possibility to use Danish seine with the purpose of application of resource-saving technology to fisheries.		
Reported to:	PINRO survey report for internal use. Joint Russian-Norwegian Fisheries Commission		

Nation:	Russia	Survey title:	Study of efficiency of "windows" in traps to allow juvenile crab escapement
Organization:	PINRO		
Time period:	January -February October-December	Vessel:	1 medium-tonnage vessel
Target species:	Red king crab	Secondary species:	
Area:	Exclusive Economic Zone of the Russian Federation, internal sea waters and territorial sea of RF		
Purpose:	Evaluation of the efficiency of "windows" in net cover of traps for decrease of juvenile crabs caught by them.		
Reported to:	PINRO survey report for internal use, Joint Russian-Norwegian Fisheries Commission.		

6. Optimal harvesting of commercial species in the Barents Sea ecosystem

The project will be carried out according to the mandate from the Joint Norwegian-Russian Fisheries Commission. Details of the work are given in the report from the Basic Document Working Group. The work involves several projects and researchers that may work independently of each other. In many cases, the same data will be used in different sub-projects. In the end, the different sub-projects will be synthesized to give an overall picture of the ecosystem and what long-term yield from each stock might be expected the taking into account its interaction with other stocks and with the environment. The work plan consists of two steps:

- In step 1 (2005 - 2007) the possible long-term yield of cod will be evaluated using

existing data and models

- In step 2 (2008 - 2014) the long-term yield of the main commercial species will be evaluated taking into account species interdependence using a joint multispecies model

7. Monitoring of pollution levels in the Barents Sea

PINRO and IMR will continue to monitor pollution levels in accordance with national programmes. Scientists from both institutes plan to discuss and exchange results from investigations during the meeting of scientists in March 2008.

The investigations of both countries are based on material collected during the surveys in the Barents Sea (see chapter 2 of this appendix).

IMR, PINRO and VNIRO scientists will probably be involved in the development of a new, joint programme for measurement and reporting of contaminants in seafood and the marine environment under the domain of the Food Control Authorities in Norway and Russia.

8. Investigations on age and growth of fish

The Parties will continue the cooperation on establishing an international historic database on growth in length and weight of fish as well as catch statistics archived at PINRO and IMR. The exchange of age reading specialists and material will continue in 2008 according to the established routines. Meeting between specialists in age reading of capelin will be held in Bergen in spring/summer 2009, and similar meeting on cod, haddock and Greenland halibut will take place in Murmansk in summer 2008. Exact timing of the meeting will be decided by correspondence.

9. Marine mammals

The effect of marine mammals, including the White Sea population of harp seals, on biological resources of the Barents and Norwegian Seas is considerable. Besides, harp, hooded and grey seals and minke whales are hunted. There is, therefore a need for joint research on marine mammals, including boat based as well as airborne surveys. The joint Russian-Norwegian research should be aimed at assessments of distribution and abundance of the most important species, and their trophic linkages with other resources.

Norwegian activities in 2008 include sampling of biological material from harp seals during commercial sealing in the southeastern Barents Sea and in the Greenland Sea, and from hooded seals during research surveys. Abundance estimation surveys of grey seals will also be conducted at the Norwegian coast. Surveys to estimate abundance of minke whale will be carried out in the eastern Barents Sea, whereas satellite tags will be deployed on minke whales and other whale species in the Barents Sea.

In 2008, the Russian Party will conduct annual multispectral aerial surveys of harp seals of the White Sea population on their whelping grounds as well as during their feeding migrations, using the Russian research aircraft. Besides, complex airborne surveys are planned during investigations of white whale as well as joint surveys on the ecology of minke whales and other whales and seals in the framework of the annual joint ecosystem surveys.

As part of the Joint Norwegian-Russian Research Program on Harp Seal Ecology, telemetric investigations of harp seals will be carried out in the White Sea in a joint Norwegian-Russian project.

Norwegian investigations:

Nation:	Norway	Survey title:	Monitoring of biological parameters in harp seals
Organisation:	IMR		
Time period:	March-April	Vessel:	1 sealer
Target species:	Harp seal	Secondary species:	
Area:	Southeastern Barents Sea		
Purpose:	Collection of biological material from harp seals during commercial sealing		
Reported to:	ICES, NAMMCO; JNRFC		

Nation:	Norway	Survey title:	Monitoring of biological parameters in harp seals
Organisation:	IMR		
Time period:	March-April	Vessel:	1 sealer
Target species:	Harp seal	Secondary species:	
Area:	Greenland Sea		
Purpose:	Collection of biological material from harp seals during commercial sealing		
Reported to:	ICES, NAMMCO; JNRFC		

Nation:	Norway	Survey title:	Monitoring of biological parameters in hooded seals
Organisation:	IMR		
Time period:	June-July	Vessel:	Research vessel ("Jan Mayen")
Target species:	Hooded seal	Secondary species:	
Area:	Greenland Sea		
Purpose:	Collection of biological material from hooded seals during research survey		
Reported to:	ICES, NAMMCO; JNRFC		

Nation:	Norway	Survey title:	Abundance estimation Grey seals
Organisation:	IMR		
Time period:	November	Vessel:	GM Dannevig
Target species:	Grey seals	Secondary species:	
Area:	Norwegian coast		
Purpose:	Abundance estimation Grey seals		
Reported to:	NAMMCO		

Nation:	Norway	Survey title:	Sighting survey Minke whale
Organisation:	IMR		
Time period:	July-August	Vessel:	2 rented vessels
Target species:	Minke whale	Secondary species:	Other whales
Area:	Greenland Sea, Spitsbergen, Western Barents Sea		
Purpose:	Sighting survey Minke whale		
Reported to:	IWC, NAMMCO		

Nation:	Norway	Survey title:	Telemetric tagging of minke whales
Organisation:	IMR		
Time period:	May-June	Vessel:	1 rented vessel
Target species:	Minke whales	Secondary species:	Other whales
Area:	North Sea, Norwegian coast		
Purpose:	Telemetric tagging of minke whales		
Reported to:	IWC, NAMMCO		

Joint investigations:

Nation:	Noway/Russia	Survey title:	Aerial survey to assess possible new harp and hooded seal breeding patches
Organisation:	IMR, PINRO		
Time period:	March/April	Vessel:	Airborne laboratory AN-26 "Arktika"
Target species:	Harp and hooded seals	Secondary species:	Other seal species, whales
Area:	The Denmark Strait		
Purpose:	To assess if harp and hooded seals may have established new breeding areas south of those traditionally used by the two species for breeding purposes in the Greenland Sea. The driving force behind such a shift maybe ice reductions.		
Reported to:	Survey report for internal use at IMR and PINRO; Joint Russian-Norwegian Fisheries Commission, ICES/NAFO WG on Harp and Hooded Seals (WGHARP), NAMMCO.		
	(dependent on project approval from Norw.Res.Council)		

Nation:	Russia/Norway	Survey title:	Harp seal tagging in the White Sea
Organisation:	PINRO, IMR		
Time period:	April-May	Vessel:	1 helicopter
Target species:	Harp seal	Secondary species:	
Area:	The White Sea coast		
Purpose:	Study of the harp seal biology and ecology, using satellite telemetry		
Reported to:	Survey report for internal use at IMR, PINRO; ICES; NAMMCO; JNRFC		

Nation:	Russia/Norway	Survey title:	Marine mammals survey
Organisation:	PINRO, IMR		
Time period:	August-October	Vessel:	2 research vessels from Norway, 2 research vessels from Russia, Airborne laboratory AN-26 "Arktika"
Target species:	Pelagic fishes, 0-group, marine mammals	Secondary species:	Seabirds, oceanographic and hydrobiological parameters at the sea surface, ice conditions
Area:	The Barents Sea		
Purpose:	Investigation of the effect of marine mammals and seabirds as well as oceanographic conditions including ice conditions on the main commercial fish species		
Reported to:	Survey report for internal use at IMR and PINRO; NAMMCO; JNRFC		

Russian investigations:

Nation:	Russia	Survey title:	Multispectral aerial survey of whelping and moulting grounds of harp seal in the White Sea
Organization:	PINRO		
Time period:	March	Vessel:	Airborne laboratory AN-26 "Arktika"
Target species:	Harp seal	Secondary species:	White whale and other species of marine mammals
Area:	The White Sea		
Purpose:	Study of distribution and estimation of number of the White Sea harp seal on whelping and moulting grounds for further calculation of number of animals in the population and the use of data obtained in the ecosystem modelling.		
Reported to:	Survey report for internal use at PINRO; ICES/NAFO Working Group on Harp and Hooded Seals (WGHARP), ICES AFWG; ICES WG on Marine Mammal Ecology (WGMME), Joint Russian-Norwegian Fisheries Commission, NAMMCO		

Nation:	Russia	Survey title:	Investigation of reproduction biology and ecology of harp seal in the White Sea
Organization:	PINRO		
Time period:	February-May	Vessel:	Coastal and ice hunting helicopter 1 sealer or R/V
Target species:	Harp seal	Secondary species:	Bearded seal, white whale and other species of marine mammals
Area:	The White Sea		
Purpose:	Investigation of biology and ecology of harp seal in the White Sea for further use in calculations of number of animals in the population and the use of data obtained in the ecosystem modelling.		
Reported to:	Survey report for internal use at PINRO; ICES/NAFO Working Group on Harp and Hooded Seals (WGHARP), ICES AFWG; Joint Russian-Norwegian Fisheries Commission,		

Nation:	Russia	Survey title:	Coastal research and observations on the White Sea harp seal and minke whale
Organization:	PINRO		
Time period:	April-September 4 expeditions of 20-30 days duration each	Vessel:	Coastal expedition with the use of available transport, motor boat "Zodiak"
Target species:	Harp seal Minke whale	Secondary species:	White whale and other species of marine mammals
Area:	Coast of the Barents and White Seas		
Purpose:	Collection of biological data, study of distribution and estimation of number, as well as migration routes of the target and secondary species for further use of data obtained in the ecosystem modelling.		
Reported to:	Survey report for internal use at PINRO; ICES/NAFO Working Group on Harp and Hooded Seals (WGHARP), ICES WG on Marine Mammal Ecology (WGMME), ICES AFWG; NAMMCO, IWC		

Nation:	Russia	Survey title:	Aerial survey of marine mammals within the frames of their complex estimation during annual Russian-Norwegian ecosystem research
Organization:	PINRO		
Time period:	September	Vessel:	Airborne laboratory AN-26 "Arktika"
Target species:	Minke whale humpback whale, white-beaked dolphin	Secondary species:	Harp seal, walrus and other species of <i>Cetacea</i> and <i>Pinnipedia</i> , seabirds
Area:	The Barents Sea		
Purpose:	Study of the effect of marine mammals and seabirds on the main commercial fishes for further use in ecosystem models for management of commercial living marine resources.		
Reported to:	Survey report for internal use at PINRO; Joint Russian-Norwegian Fisheries Commission, ICES AFWG, ICES WG on Marine Mammal Ecology (WGMME), NAMMCO, IWC.		

10. Investigations on survey methodology

The Joint Working Group on the improvement of survey methodology took place in Bergen on 11-12 April 2007. The Working Group discussed the following themes: "Improvement of standard survey methods", "Combination of survey methods for the full assessment" and "Future development in the survey methods". Summary of discussions and recommendations were presented to the 36th session of the Joint Russian-Norwegian fisheries Commission.

The Working Group agreed that the long-term objective of the work is a transition to absolute abundance estimates of fish stocks including acoustic estimate of target strength and catchability of fishing gears.

It is necessary to develop a common methodology of acoustic estimation of target strength (TS) of fish and to examine a possibility to establish a joint database on TS estimates.

There is a need to continue studying trawl catchability, differentiated coefficients for fish of different sizes including the use of underwater video and acoustic methods.

Scientists from both countries supported the program on the LIDAR use, especially as regards research on feeding mackerel in the Norwegian Sea.

Commercial CPUE data is an important source of information for stock assessment. However, methodology of the analysis of this data and procedure of their collection require further improvement.

The future investigations in these issues will be discussed by correspondence and during the March meeting 2008.

11. Russian-Norwegian Fisheries Science Symposia

The 12th Russian-Norwegian Symposium was held on 21-22 August 2007 in Tromsø, Norway.

The title of the symposium is: "Long term bilateral Russian-Norwegian scientific co-operation as a basis for sustainable management of living marine resources in the Barents Sea"

Theme sessions:

- Establishment and maintenance of long time marine data bases
- Development and implementation of new methods and models
- Long term changes in the Barents Sea ecosystem

The 13th Russian-Norwegian Symposium shall be arranged in Russia in 2009. The topic is suggested to be on the Red King Crab population development and ecosystem effects in the Barents Sea. Further planning of the Symposium will be done during the March Meeting in Tromsø 2008.

12. Development of an exchange program of scientists

In 2006 it was suggested to develop a program for exchange of scientists between PINRO, VNIRO and IMR, on all levels (students – research technicians – senior scientists).

The program will be further developed in 2008, and considered during the March meeting. The program should include exchange between the institutions at their laboratories and at their research vessels during investigations. The institutions will agree on the program before its implementation.

13. Development of joint assessment model for herring stock

On 27-28 August 2007 ICES Northern Pelagic and Blue Whiting Fisheries Working Group was informed about the progress in the development of a unified model for the herring stock assessment. A general concept of such model was designed in 2005-2006 during meetings of Russian and Norwegian experts. At present, realization of the model has been started but because of a lack of specific financing the program is far from its final stage. It is necessary to consider a possibility of bilateral financing of this project. It is expected that the next meeting of Russian and Norwegian experts participating in the model development will take place in Bergen in the first half of 2008.

14. Joint three-year program on benthic living animals

Work on this program has proceeded according to the decisions made during the March Meeting. Joint field work was done during the ecosystem survey in August to September 2007.

Joint three-year experience in work with bycatch in bottom trawls showed the necessity to make an electronic atlas of demersal macroorganisms adapted for field works. Work on such atlas was initiated by PINRO in 2005. In 2007 first results from the work were presented to Norwegian

colleagues. At the meeting of scientists in March it was decided to combine efforts of both Parties in the work on the atlas within the frames of the joint three-year program on benthic living organisms.

In 2007 workshops were arranged to calibrate benthic species identification by the two Parties.

The 3 year program will be presented to the joint Russian-Norwegian Fishery Commission in 2009. At the March meeting in 2008 special emphasis should be given to discuss the structure and contents of the final report.

15. Determination of conversion factors for cod, haddock and other gadoids

Scientific and research institutes of Russia and Norway continue investigations on establishing true conversion factors for products produced at sea from cod, haddock and other gadoids.

True conversion factors are necessary to estimate actual catch of objects of the joint fishery.

Varying fishing conditions, such as fishing areas and seasons, length-weight characteristics of fishing objects, technological parameters of raw fish processing including different ways of cutting (manual or mechanized), types of equipment, ways of freezing, packing and storage require continuous investigations.

It is necessary to obtain additional data during fishery onboard Russian vessel taking into account biological variations in cod, haddock and other gadoids, analysis of technological process including norms of raw materials consumption during production of their products.

Joint investigation:

Nation:	Russia/Norway	Survey title:	Cod and haddock conversion factors
Organization:	PINRO, VNIRO, Norw. Dir. of Fisheries.,	Vessel:	Rented vessels
Time period:	All fishing seasons		
Target species:	Cod, haddock	Secondary species:	Saithe
Area:	The main joint areas of fisheries		
Purpose:	To conduct experimental and checking works, to determine conversion factors		
Reported to:	Survey report for internal use; VNIRO, PINRO.		

16. Joint project “The Barents Sea Ecosystem Book”

In 2007 Russian and Norwegian scientists agreed to begin works on a joint book summarizing 50-year experience of research and management of stocks in the Barents Sea. There were three meetings during which the period of the project (2007-2010), content and structure of the book as well as some technical details were agreed. It was also agreed to hold the next meeting of Russian and Norwegian scientists within the frames of this project in Kirkenes in December 2007.

17. Catch volumes needed for investigations of marine resources and monitoring of the most important commercial species, as well as management tasks

The catch volumes shall enable each party to carry out all tasks described in “Joint Norwegian – Russian Scientific Research Program on Living Marine Resources in 2007” including surveillance activities to provide recommendations on area closures/reopening as well as other decisions on management of fishing activities on living marine resources in ICES Subarea I and II including respective EEZs of Russia and Norway, Grey zone, Loophole and Spitsbergen area.

To solve these tasks the following catch quantities are decided for each party for 2008:

- 11 000 tonnes of cod in addition to volumes mentioned in Appendix 3
- 4 000 tonnes of haddock in addition to volumes mentioned in Appendix 3
- 5 000 tonnes of capelin
- 4 000 tonnes of Greenland halibut
- 2 000 tonnes of other fish species in addition to volumes mentioned in Appendix 6, as follows:
 - Saithe - 250
 - Redfish *S. mentella* - 100
 - Redfish *S. marinus* - 30
 - Northern wolffish - 850
 - Spotted catfish - 640
 - Atlantic wolffish - 5
 - Long rough dab - 120
 - Skates - 5

Both Parties will make all efforts to fulfill their respective parts of the program.

All catches taken for research and management purposes should be recorded in the catch statistics separately.

**For informasjon om rapporten, se vedlegg 11 til protokollen fra den 35. sesjon i Den
blandete norsk-russiske fiskerikommisjon;**

Protocol

of the second meeting of the
WORKING GROUP ON ELABORATION OF PROPOSAL ON JOINT MANAGEMENT
MEASURES FOR GREENLAND HALIBUT
Kirkenes, 4. – 6. October 2006

KONTROLLTILTAK

Omlasting

Det er forbudt å omlaste fisk til fartøy som ikke har rett til å seile under flagget til medlemstater i NEAFC, eller flagg til stater som ikke har status som NEAFC-samarbeidsland.

Satellittsporing

Transportfartøy som mottar fisk skal være underlagt sporingsplikt på lik linje med fiskefartøy.

Rapportering ved omlasting

Det er rapporteringsplikt for fiske- og transportfartøy involvert i omlasting til havs. Rapportering skjer til flaggstatens kontrollorgan. Inntil elektronisk rapportering etableres skal rapportene sendes manuelt i samsvar med gjeldende regelverk:

- Fiskefartøyet skal sende melding om omlasting 24 timer før omlastingen starter
- Fartøyet som mottar fangst skal senest 1 time etter at omlastingen har funnet sted, sende rapport om omlastingen
- Meldingen skal inneholde informasjon om tid og posisjon for omlastingen og opplysninger om fartøy som har levert fangst og hvem som har mottatt fangst, samt omlastet kvantum spesifisert på art i rund vekt
- Mottaksfartøyet skal senest 24 timer før landing finner sted, også gi opplysninger om hvor fangsten skal landes
- Fiskefartøy som har til hensikt å lande i tredjeland skal ved utseiling fra de respektive lands økonomiske soner gi opplysninger om hvor fangsten skal landes.

Utteksling av informasjon

Partene forplikter seg til å gi den annen part fangstopplysninger om kvoteregulerte bestander, på anmodning.

Partene skal månedlig utveksle informasjon om kvoter av torsk og hyse nord for 62°N, på fartøynivå inntil slik informasjon blir løpende oppdatert på Internet som et alternativ til månedlig utveksling.

Inspeksjoner ved landing

For å oppnå en effektiv kontroll med landinger skal mobile grupper med inspektører fra begge land, på bakgrunn av informasjon om mulige overtredelser av fiskerilovgivningen, kunne iverksette kontrolltiltak i tredjeland og eventuelt forfølge sakene videre. Gruppene må raskt kunne dra til landingshavn for å kunne observere landingen.

Utveksling av inspektører i Smutthullet og Gråsonen

Partene er enige om å samarbeide om gjennomføring av inspeksjoner av fiskefartøyer i Smutthullet og det tilstøtende området i Barentshavet under inspeksjon av fartøyer med egne staters flagg. Her skal partene etter avtale gi inspektører fra en part oppholdsrett på den andre partens fartøyer for å gjennomføre inspeksjoner av fartøyer med egen stats flagg som driver fiske i Smutthullet og det tilstøtende området i Barentshavet.

Harmonisert kontrollmetodikk

Partene er enige om å benytte omforent kontrollmetodikk som ble avtalt i Det permanente utvalg sitt møte 9.-13.oktober 2006. Kontrollmetodikken fremgår av Vedlegg 3 til protokollen fra nevnte møte.

vedlegg 13

**Report of the Basic Document Working Group (BDWG)
to the 36th Session of The Joint Norwegian-Russian Fishery
Commission.**

10 October 2007.

on

**Harvest Control Rule for Management of Fishery on
North East Arctic Cod, North East Arctic Haddock, North East Arctic Saithe
and Optimal Long Term Harvest in the Barents Sea Ecosystem**

By:

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Content:

1. Introduction
2. Additional evaluation of the Harvest control rule for North East Arctic Cod
3. Harvest control rule for North East Arctic Haddock
4. Harvest control rule for North East Arctic Saithe
5. Optimal long-term harvest in the Barents Sea ecosystem
6. Appendix – ICES evaluation of HCR for North East Arctic Saithe

Executive Summary

This is a report made by the Russian-Norwegian “Basic Document Working Group” (BDWG). There was not a particular meeting of the BDWG in 2007 and the current report has been made by correspondence. Additional evaluation of the Harvest control rules for Northeast Arctic (NEA) Cod with different levels of implementation error, review of work done on evaluation of Haddock Harvest control rules, results of evaluation of the Harvest control rules for Northeast Arctic Saithe, and work made in accordance to the working plan to provide a scientific assessment of optimal long-term yield of the most important commercial species in the Barents Sea, were considered.

Northeast Arctic Cod

ICES has made an additional evaluation the harvest control rule for NEA Cod taking into account the different levels of implementation error including the currently observed level. The present BDWG report gives the results from this evaluation. Based on these results ICES concluded that *“the agreed management plan has been found to be consistent with the precautionary approach and is therefore the basis for the advice.”*

Northeast Arctic Haddock

ICES has reviewed the evaluation of the harvest control rule for NEA Haddock. During this review AFWG on its meeting in 2007 has decided:

“The 3-year-rule does not correspond to the precautionary approach as the level of risk to fish above F_{lim} is higher than 5%

...

One year rule is in correspondence with the precautionary approach if there no implementation error in stock management.”

ACFM concluded that the 1-year rule is preferable compared to the 3-year rule. The BDWG advises the Commission to replace the 3-year rule with the 1-year rule.

Northeast Arctic Saithe

ICES has made an evaluation of the harvest control rule for NEA Saithe. The present BDWG report gives the results from the evaluation. Based on these results ICES concluded that *“The rule is considered consistent with the precautionary approach and shows only a very small risk of SSB falling below B_{lim} .”*

Scientific assessment of optimal long term yield

A brief report on the research programme for estimation of long-term yield of marine organisms in the Barents Sea taking into account species interactions and effect of ecosystem factors is presented in section 5.

1. Introduction

According to point 12.2 in the protocol of the 30th session of the Commission it was agreed on the necessity to develop a “Basic document regarding the main principles and criteria for long term, sustainable management of living marine resources in the Barents- and Norwegian Seas” - and that this document should be regarded as a normative basis for a long term strategy for sustainable management of the most important joint fish stocks of the two nations. To develop this “Basic document” a working group of specialists from Russia and Norway was appointed.

The Basic Document Working Group (BDWG) submitted their report to the meeting of the 31st session of the Commission. The report formed a basis for discussions on the harvest control rule for cod and haddock, which was decided at that meeting. The Parties agreed that the BDWG during the following year should illustrate how these decision rules would work. The working group prepared a progress report on the evaluation of the harvest control rule to the meeting of the 32nd session of the Commission.

At the 32nd session, the Commission confirmed that the joint stocks of NEA cod and haddock should be managed in accordance with the management strategies formulated at the 31st session of the Commission. In addition, the Commission agreed that BDWG should continue their evaluation of the management strategies.

In 2005 the harvest control rule for NEA cod, including measures for ensuring rebuilding of the stock in cases when SSB falls below Bpa was evaluated by ICES and found consistent with the precautionary approach to fisheries. At their 34th session, the joint Russian-Norwegian Fisheries commission agreed to set the TAC for NEA cod in accordance with the evaluated HCR.

In 2006 the ICES decided not to use the agreed HCR for recommendation of NEA cod TAC based on the fact that currently observed level of implementation error was higher than tested by ICES in HCR evaluation at 2005. In such a case the rule is not consistent with the precautionary approach to fisheries. The Basic Document Working Group during the AFWG-2007 meeting prepared an additional work on evaluation of the harvest control rule for NEA cod taking into account different levels of implementation error. The results of this evaluation were presented to ACFM.

In 2006 work has been carried out on the revision of historical data and on the evaluation of the agreed harvest control rule for NEA haddock. In 2007 ICES has reviewed this evaluation. The present BDWG report gives a summary of this work, and also recommends that modification of the HCR for NEA haddock, by replacing 3-year prediction with 1-year, is made by the 36th session of the Joint Russian-Norwegian Fisheries Commission.

In 2007 Norway has asked ICES to evaluate a proposal for a management strategy for Northeast Arctic saithe. This evaluation has been done by ICES and results of the evaluation are presented in this report.

The report contains also a description of progress in the work on scientific estimation of long term optimal yield from the important fish stocks in the Barents Sea.

2. Additional evaluation of the Harvest control rule for North East Arctic Cod

The HCR evaluation performed in 2005 found the HCR to be in agreement with the precautionary approach, provided that the assessment uncertainty, assessment error and implementation error are not greater than those calculated from historic data and used in the evaluation. It should be noted that an implementation error of 12% with a CV of 0.18 was used for all age groups in the testing of the HCR. In 2002-2006, the implementation error has been in the 20-35% range. Thus, the assumptions made in the evaluation may be violated.

The HCR evaluation from 2005 was re-run by AFWG in its meeting in 2007. Runs were made with 10%, 20%, 30%, 40% and 50% implementation error. The only setting which was changed was the CV of the implementation error which was set to 0. As in 2005, two sets of runs were made: With 'low' M on age 3 and 4 fish ($M=0.2$ for those age groups), and with 'high' M on age 3 and 4 fish ($M=0.7$ and 0.4 , respectively). The high M levels are close to the highest M values calculated for these age groups in the period 1984-2006.

The results of the runs are given in the text table below. Catch and Biomasses in 1000 t.

Run No.	M	Error	Real. F	Catch	TSB	SSB	Recruits Age 3	% years SSB < Blim	% years SSB < Bpa	Average year-to-year % change in TAC
1	Low	10%	0.63	914	3140	749	690	0.001	4.0	11
2	Low	20%	0.73	916	2968	650	691	0.005	12.7	15
3	Low	30%	0.81	917	2821	573	690	0.05	24.2	21
4	Low	40%	0.86	919	2698	515	687	0.18	35.0	27
5	Low	50%	0.90	925	2606	476	686	0.48	43.3	34
6	High	10%	0.57	486	1894	451	687	0.11	48.7	17
7	High	20%	0.64	482	1794	395	682	0.69	62.9	23
8	High	30%	0.69	476	1709	355	674	2.4	71.0	29
9	High	40%	0.74	468	1633	325	660	5.7	75.2	34
10	High	50%	0.77	455	1556	300	640	10.6	77.5	37

A tentative conclusion is that the current levels of implementation error/IUU (according to Norwegian estimates) of around 30% are close to the level for which the agreed HCR no longer is precautionary, for a worst case scenario in terms of high mortality for age 3 and 4 cod.

The results of evaluation reviewed by ACFM and it was concluded that:

“Further evaluations made in 2007 concluded that the risk for SSB to drop below B_{lim} is low within a plausible range of conditions. Therefore, ICES considers the management plan to be in accordance with the precautionary approach.

If conditions change to outside the assumed range (with respect to biological conditions, assessment quality, or implementation error), the management plan may have to be revised. In particular, overfishing of the TACs derived from the management plan at levels that have been observed in the recent past is likely to lead to that situation.”

3. Harvest control rule for Northeast Arctic Haddock

ICES has reviewed the evaluation of the harvest control rule for NEA Haddock made in 2006. During this review AFWG on its meeting in 2007 decided:

“The 3-year-rule does not correspond to the precautionary approach as the level of risk to fish above F_{lim} is higher than 5%

...

One year rule is in correspondence with the precautionary approach if there is no implementation error in stock management.”

ACFM concluded that the 1-year rule is preferable compared to the 3-year rule.

The BDWG recommends that the Joint Russian-Norwegian Fisheries Commission at their 36th session, on the basis of the discussion in the BDWG reports 2006 and 2007, replace a 3-year rule with a 1-year rule. This suggests that the Joint Russian-Norwegian Fisheries Commission in the management of the NEA haddock should apply the following HCR:

- *TAC for the next year will be set at level corresponding to F_{pa} .*
- *The TAC should not be changed by more than +/- 25% compared with the previous year TAC.*
- *If the spawning stock falls below B_{pa} , the procedure for establishing TAC should be based on a fishing mortality that is linearly reduced from F_{pa} at B_{pa} to $F=0$ at SSB equal to zero. At SSB-levels below B_{pa} in any of the operational years (current year and a year ahead) there should be no limitations on the year-to-year variations in TAC.*

ICES Advice on TAC for NEA haddock for 2008

Based on the assessment provided by AFWG-2007, the catch for 2008 should in accordance with the rule be less than 178 000 tonnes.

However, HCRs are not recommended by ICES for the management of NEA haddock in 2008. ICES stated in their 2007 report on the TAC level for 2008 the following:

“... the management plan was only in agreement with the precautionary approach in the absence of implementation error. Unreported landings have increased in recent years (2002-2006). When implementation errors of this order of magnitude are used

in the simulations, the agreed management plan is no longer in agreement with the precautionary approach.”

“No stock assessment has been accepted since the revision of the catch data in 2006. This revision resulted in a substantially different perception of the stock dynamics.”

Thus, due to the absence of a reliable assessment of stock status and high level of implementation error the advice from ICES on TAC for NEA Haddock for 2008 was not made on the basis of the agreed HCR but based on the other considerations:

“The recent increase in SSB (through the years 2001-2004) has been associated with catches less than 130 000 tonnes (including misreported catches). In the absence of a reliable assessment and since these catches appear to have led to an increase in the stock, ICES recommends keeping catches below this level.”

The main reason why the haddock assessment was not accepted was that the trends in the stock abundance from the surveys and from the VPA are substantially different. This is illustrated in Fig. 1.

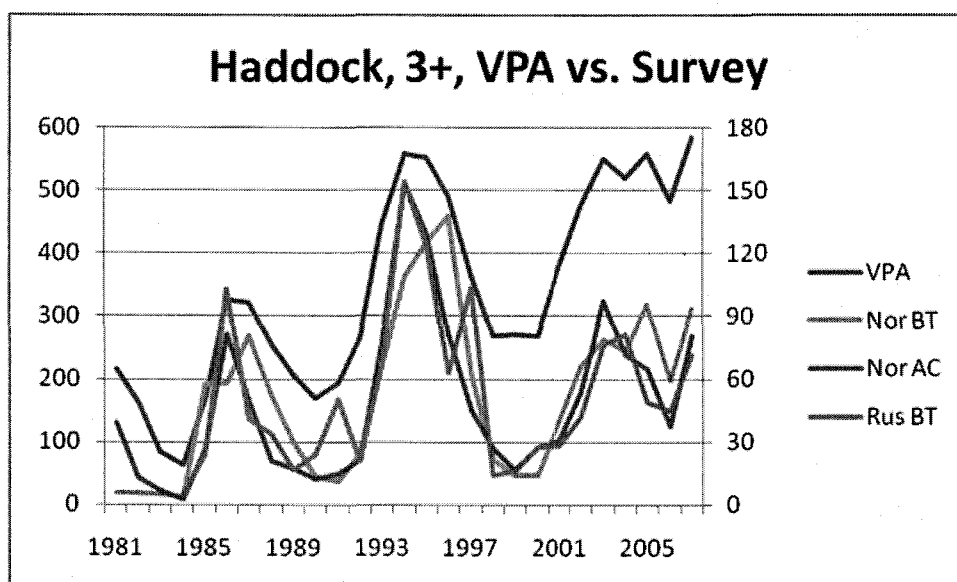


Fig. 1. Biomass of age 3 and older haddock (1000 tonnes), calculated from the VPA as well as from the survey indices. When calculating biomass from survey indices, the same weight at age as in VPA is used. VPA and Norwegian surveys are shown on the left axis, the Russian survey is shown on the right axis.

4. Harvest control rule for Northeast Arctic Saithe

Norway has asked ICES to evaluate a proposal for a management strategy for Northeast Arctic saithe:

“to evaluate whether the harvest control rule for setting the annual fishing quota (TAC) is consistent with the precautionary approach. The proposed harvest control rule contains the following elements:

- *Estimate the average TAC level for the coming 3 years based on F_{pa} . TAC for the next year will be set to this level as a starting value for the 3-year period.*
- *The year after, the TAC calculation for the next 3 years is repeated based on the updated information about the stock development, however, the TAC should not be changed by more than +/- 15% compared with the previous year's TAC.*
- *If the spawning stock biomass (SSB) in the beginning of year for which the quota is set (first year of prediction), is below B_{pa} , the procedure for establishing TAC should be based on a fishing mortality that is linearly reduced from F_{pa} at $SSB=B_{pa}$ to 0 at SSB equal to zero. At SSB-levels below B_{pa} in any of the operational years (current year and 3 years of prediction) there should be no limitations on the year-to-year variations in TAC.”*

ICES concluded that the HCR is consistent with the precautionary approach for all simulated data and settings, including a rebuilding situation under the condition that the assessment uncertainty and error are not greater than those calculated from historic data. This also holds true when an implementation error (difference between TAC and catch) equal to the historic level of 3% is included.

The highest long-term yield was obtained for an exploitation level of 0.32, i.e. a little below the target F used in the HCR (F_{pa}), and ICES recommends using a lower value in the HCR. The HCR is expected to rebuild a depleted stock to a level above B_{lim} within three years.

Technical details of the evaluation of the harvest control rule are provided in the Appendix.

The advice on levels of catch and effort for 2008 is consistent with the harvest control rule for Northeast Arctic saithe provided in ICES advice.

5. Optimal long-term harvest in the Barents Sea Ecosystem

The work of IMR and PINRO on the joint Program for estimation of optimal long-term harvest in the Barents Sea Ecosystem adopted at the 33rd session of the Commission continues.

At the meeting in Svanhovd in September 2007, the work in the following subprojects was summarized: cod growth, recruitment, including fecundity and skipped spawning, and cannibalism. These subprojects have so far been the main ones. At the meeting in Svanhovd the approaches for implementation of regressions on cod growth rate and skipped spawning in the population models were agreed. Capelin abundance and temperature are identified as the main ecosystem factors that influence cod stock dynamics. During the first stage of the project these were the primary ecosystem

factors taken into account for estimation cod long-term yield. The inclusion in estimations of other ecosystem factors such as plankton, herring and marine mammals in estimations of long-term yield of cod will be realized in the next stage of the project.

During the first stage of the project, three models: **EcoCod**, **STOCOBAR** and **Bifrost** were developed as tools for estimation of long-term yield and optimization of the cod management strategies in the ecosystem aspect. The descriptions of these models are presented on the web-site of the project (www.assessment.imr.no/Request/index.html). All of these models have both advantages and shortcomings. All models satisfactorily describe the necessary biological processes (growth, maturation, recruitment, cannibalism), however, they treat uncertainties to a different extent. In this respect **Bifrost** is the most advanced. It is planned to hold a joint meeting in February 2008 that will be devoted to testing the developed models and to estimating of reliability in calculations of maximum long-term yield for cod.

Two working meetings between the specialists from PINRO and IMR within the framework of the joint Programme of research were held in 2007 (one in Murmansk and one in Svanhovd).

The annual report on joint work will be presented by the co-ordinators of the project in PINRO and IMR at the meeting of scientists in March 2008.

APPENDIX:

3.3.3 Special requests

3.3.3.1 Norwegian request for advice on Northeast Arctic saithe (Subareas I and II)

Norway has asked ICES to evaluate a proposal for a management strategy for Northeast Arctic saithe:

to evaluate whether the harvest control rule for setting the annual fishing quota (TAC) is consistent with the precautionary approach. The proposed harvest control rule contains the following elements:

- *Estimate the average TAC level for the coming 3 years based on F_{pa} , TAC for the next year will be set to this level as a starting value for the 3-year period.*
- *The year after, the TAC calculation for the next 3 years is repeated based on the updated information about the stock development, however, the TAC should not be changed by more than +/- 15% compared with the previous year's TAC.*
- *If the spawning stock biomass (SSB) in the beginning of year for which the quota is set (first year of prediction), is below B_{pa} , the procedure for establishing TAC should be based on a fishing mortality that is linearly reduced from F_{pa} at $SSB=B_{pa}$ to 0 at SSB equal to zero. At SSB -levels below B_{pa} in any of the operational years (current year and 3 years of prediction) there should be no limitations on the year-to-year variations in TAC.*

ICES comments

The evaluation of the harvest control rule is provided below. The advice on levels of catch and effort for 2008 consistent with the harvest control rule for Northeast Arctic saithe is provided in Section 3.4.4.

ICES concluded that the HCR is consistent with the precautionary approach for all simulated data and settings, including a rebuilding situation under the condition that the assessment uncertainty and error are not greater than those calculated from historic data. This also holds true when an implementation error (difference between TAC and catch) equal to the historic level of 3% is included.

The highest long-term yield was obtained for an exploitation level of 0.32, i.e. a little below the target F used in the HCR (F_{pa}), and ICES recommends using a lower value in the HCR.

The HCR is expected to rebuild a depleted stock to a level above B_{lim} within three years.

Technical Annex to the ICES response

The evaluation of HCRs for Northeast Arctic saithe has been carried out using simulation models. Important issues for the evaluation of harvest control rules are the choice of population model, inclusion of uncertainty in population model, the choice of initial values for simulations, the formulation of harvest control rules for use in the evaluation (constant F rules, how to reduce F when $SSB < B_{pa}$, limit on year-to-year variation in catch, etc.), and performance measures for harvest control rules (yield, stock size, F , probability of $SSB < B_{lim}$, annual variation in catches, etc.). The evaluation of the HCR takes the implementation error into account.

The model used for Northeast Arctic saithe was:

- A Beverton–Holt spawning stock–recruitment model with a log-normal error distribution.
- Assessment error and bias are estimated as age-dependent, normally distributed.
- Density-dependent weight-at-age in catch (average for 1981–2005 used for age groups where density-dependence was not found).
- Weight-at-age in stock is set equal to weight-at-age in catch.
- Time-series (1986–2005) average used for maturation-at-age without density-dependence.
- No uncertainty in weight-at-age, maturity-at-age, or natural mortality-at-age.
- Exploitation pattern: 1997–2005 averages used for all age groups in all years.

- Implementation of catch: First, the catch-at-age is calculated from the perceived stock using the fishing mortality derived from the harvest control rule and the given exploitation pattern. This catch-at-age is then applied to the actual stock.
- The implementation error and bias is estimated using the same percentage for all age groups.

Recruitment estimation

The recruitment dynamics show some relatively clear changes over time. A Beverton–Holt relationship with a log-normal error distribution was used for the long-term evaluations.

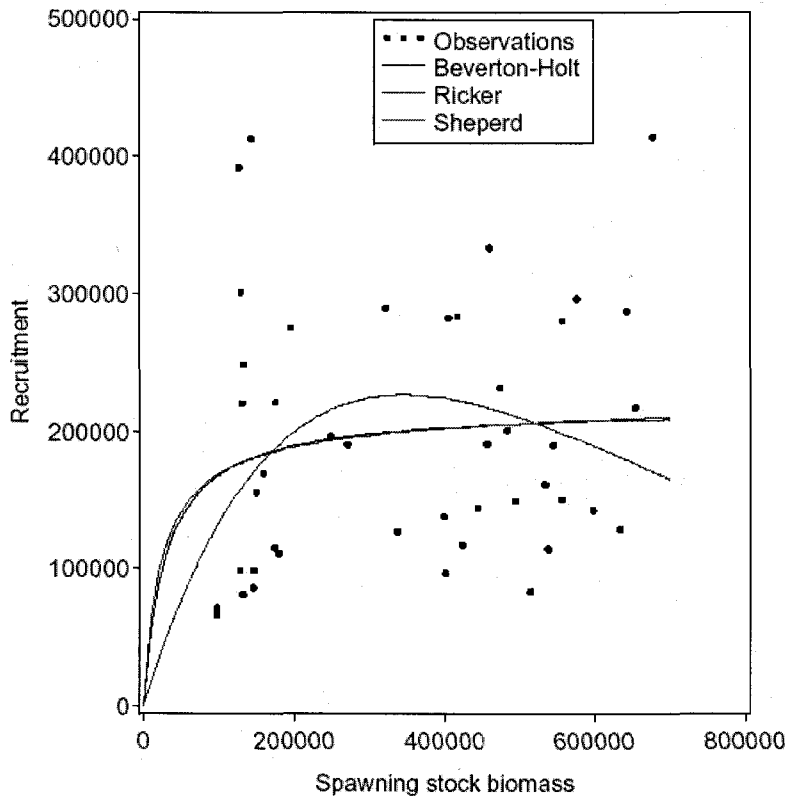


Figure 3.3.3.1.1 Spawning-Stock Recruitment (age 3) plot for Northeast Arctic saithe.

Reality check

The model was exposed to a reality check using $F_{4.7} = 0.38$ for all SSB levels, a 50% maximum year-to-year change in TAC, and three options for assessment error. $F_{4.7} = 0.38$ is equal to the average fishing mortality for the period 1960–2005. The runs indicate that the model performs reasonably well at this level of fishing mortality.

Scenarios

The various settings used in the long-term simulations are presented in Table 3.3.3.1.1 and the results of the simulations are described in Table 3.3.3.1.2. The starting point for these simulations is a stock in healthy condition.

To study the performance of the rule in a stock recovery situation runs were made starting in 1986 and ending in 1991; 1986 was chosen because it was a year when the stock size was fairly low. Settings for the recovery simulation runs are presented in Table 3.3.3.1.3 and the results of the simulations are described in Table 3.3.3.1.4.

Table 3.3.3.1.1 Settings for long-term simulation runs.

Run No.	F	3-year rule	Implementation error	Option for assessment error	Fishing pattern	Percent change in TAC	F below B_{pa}
1	0.35	No	No	1	97-05 av.	15	Flat
2	0.35	Yes	No	1	97-05 av.	15	Linear
3	0.35	Yes	Yes	1	97-05 av.	15	Linear
4	0.35	Yes	Yes	2	97-05 av.	15	Linear
5	0.35	Yes	Yes	3	97-05 av.	15	Linear
6	0.35	Yes	Yes	2	97-05 av.	10	Linear
7	0.35	Yes	Yes	3	97-05 av.	10	Linear
8	0.35	Yes	Yes	2	97-05 av.	20	Linear
9	0.35	Yes	Yes	3	97-05 av.	20	Linear
10	0.30	Yes	Yes	1	97-05 av.	15	Linear
11	0.30	Yes	Yes	2	97-05 av.	15	Linear
12	0.30	Yes	Yes	3	97-05 av.	15	Linear
13	0.25	Yes	Yes	1	97-05 av.	15	Linear
14	0.25	Yes	Yes	2	97-05 av.	15	Linear
15	0.25	Yes	Yes	3	97-05 av.	15	Linear
16	0.25	Yes	Yes	3	76-79 av.	15	Linear

Table 3.3.3.1.2 Results of long-term simulations. Catch, TSB and SSB in 1000 tonnes, recruits in millions. The options for the error are 1: No assessment error, 2: assessment error estimates based on the period 1999–2005, i.e. underestimation of stock size, and 3: Opposite trend in assessment error.

Run No.	Option for assessment error	Input F	Realised F	Catch	TSB	SSB	Recr.	% years $SSB < B_{lim}$	% years $SSB < B_{pa}$	Average year-to-year change in TAC
1	1	0.35	0.35	194	844	439	203	0	0	5
2	1	0.35	0.35	195	846	440	204	0	0	3
3	1	0.35	0.37	194	813	413	202	0	0.001	3
4	2	0.35	0.29	185	1015	602	209	0	0	10
5	3	0.35	0.48	193	703	317	195	0	3	8
6	2	0.35	0.29	184	1016	602	209	0	0	8
7	3	0.35	0.48	193	704	318	195	0.005	3	7
8	2	0.35	0.29	185	1017	603	210	0	0	11
9	3	0.35	0.48	193	702	317	195	0	3	9
10	1	0.30	0.32	196	917	499	206	0	0	3
11	2	0.30	0.25	181	1140	713	212	0	0	10
12	3	0.30	0.41	198	790	384	201	0	0.049	8
13	1	0.25	0.26	194	1044	609	210	0	0	3
14	2	0.25	0.21	174	1291	850	214	0	0	9
15	3	0.25	0.33	200	897	473	205	0	0	8
16	3	0.35	0.44	157	477	203	182	2.6	68	8

Table 3.3.3.1.3 Settings for recovery simulation runs. The options for the error are 1: No assessment error, 2: assessment error estimates based on the period 1999–2005, i.e. underestimation of stock size, and 3: Opposite trend in assessment error.

Run No.	F	3-year rule	Recruitment	Implementation error	Option for assessment error	Percent change in TAC	F below B_{pa}
1	0.35	Yes	Modelled	Yes	1	15	Linear
2	0.35	Yes	Modelled	Yes	3	15	Linear
3	0.35	Yes	Lowest obs.	Yes	3	15	Linear

Table 3.3.3.1.4 Results of simulations for 1986–1991. Catch, TSB, and SSB in 1000 tonnes, recruits in millions. The fishing mortality in 1986 is as assessed = 0.54.

Run No.	Input F	Mean Realised F 1987->1991	Range Mean Catch 1987->1991	SSB 1987->1991	Probability realisations with $SSB < B_{lim}$ 1987->1991	Probability realisations $SSB < B_{pa}$ 1987->1991
1	0.35	0.21->0.39	43->136	87->279	1->0	1->0.06
2	0.35	0.33->0.51	57->138	87->231	1->0	1->0.4
3	0.35	0.30->0.41	35->78	84->162	1->0.04	1->1

Results of the evaluation

Initial stock in healthy conditions

The rule is considered consistent with the precautionary approach and shows only a very small risk of SSB falling below B_{lim} .

Most of the results of the simulations are quite similar. Catches range from 157 000 to 200 000 tonnes, recruits from 182 to 214 millions, while the variations in estimated biomasses are larger, SSB ranges from 203 000 to 850 000 tonnes.

The historic implementation error (the difference between TAC and catch) is low (3% on average). Consequently, the result is not significantly different whether or not the implementation error is included.

The part of the HCR limiting the annual change in TAC to 15% is probably not too restrictive and large enough to maintain SSB above B_{lim} in practically all the simulated cases.

Initial stock depleted

The simulations indicate that management following the HCR can rebuild the stock to above B_{lim} within three years.

Source of information

ICES. 2007. Report of the Arctic Fisheries Working Group, 18–27 April 2007. ICES CM 2007/ACFM:16.

Vedlegg 14/appendix 14

Clarification of the effects of overfishing in 2007 on the TAC for NEA cod for 2008

*Report from a sub-group of the Scientific working group during 36th session of the NRFC upon request from the heads of delegations. The request is **only** to clarify the effects of various levels of catches in 2007 on the TAC for 2008 and onwards.*

IUU (illegal, unregulated and unreported) catches creates considerable problems for fish stock assessment and predictions, and leads to increased uncertainty and hence lower quality of the scientific advice. Unfortunately, this problem has been an inherent part of the stock assessment of NEA cod in recent years. To generate a prognosis as basis for TAC-calculation, assumptions about the catches in the assessment year has to be made. Basically, this can be done by assuming a certain total catch in the assessment year, for instance the TAC. However, in some cases the TAC is considered not to be appropriate basis for such analysis. For NEA cod, ICES has used a so-called $F_{\text{status quo}}$ projection. This implies an assumption that the same fishing mortality coefficient (F) as calculated for a recent period of years (1-3) is applied also for the assessment year. This approach has been found to produce prognoses, which are better in accordance with reality when considered on a retrospective basis, than the use of TAC. This technique incorporates a possible overfishing of TAC, but also other underlying deficiencies of data and methods.

The use of $F_{\text{status quo}}$ implies an assumption that the fisheries in the assessment year is carried out in a relatively stable manner compared to a recent period (similar fishing effort, exploitation pattern etc.). If there are reasons to believe that these assumptions are not valid for the assessment year, another approach could be used when giving prognoses and TAC for the coming years. Several intermediate options between a TAC constraint and an $F_{\text{status quo}}$ approach could be proposed. In the tables below, the effects of several levels of exploitation in 2007, ranging from the agreed TAC (424 000 t.) to the $F_{\text{status quo}}$ level (530 000 t.) is applied to the assessment made by ICES in June 2007.

The members of the subgroup undertaking these calculations have not yet seen any estimates of the anticipated total catch for 2007.

Table 1. Level of TAC for the three coming years for different catch levels in 2007, and fishing according to the catch rule during 2008-10. All numbers are in '000 tonnes.

Prognosed catch in 2007 ('000 tonnes)	TAC		
	2008	2009	2010
424 (= TAC)	440	480	516
435	437	478	514
445	434	476	512
466	428	471	508
488	423	466	505
509	417	461	501
530 (ICES progn. based on Fsq)	409	455	496

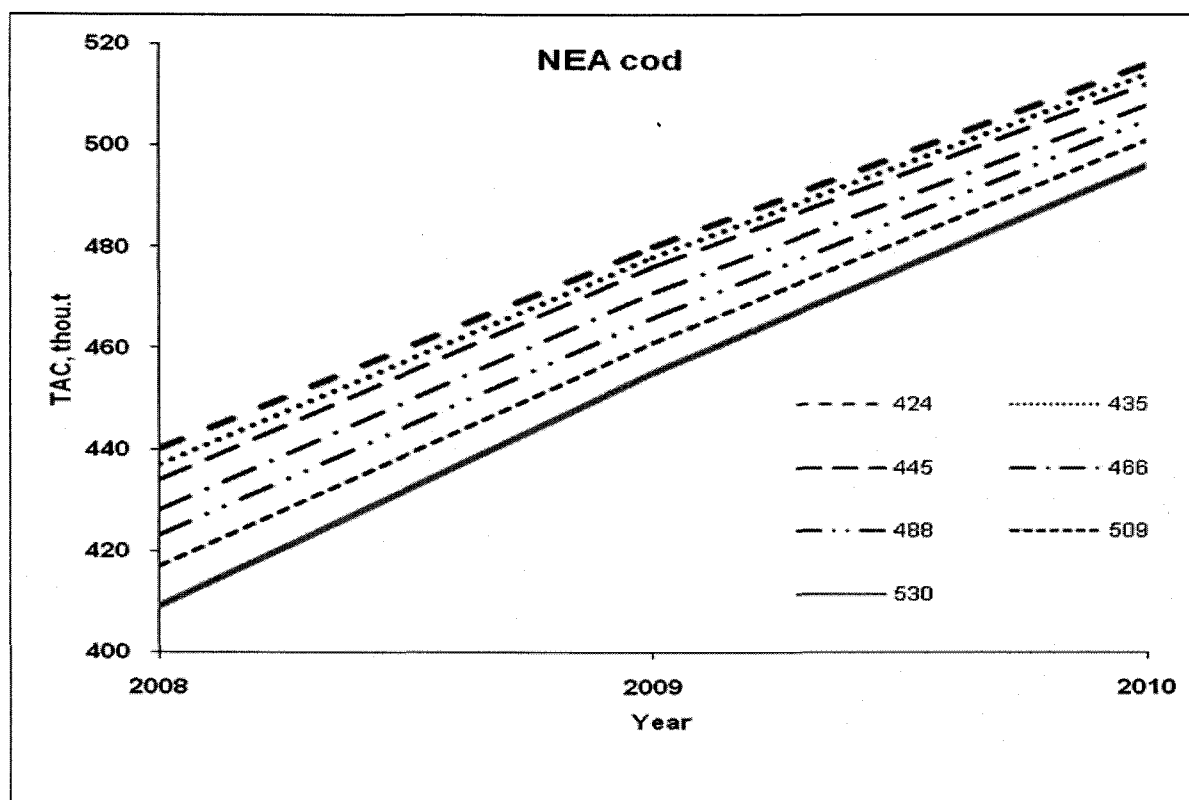


Figure 1. TAC in 2008-2010 as a function of catch in 2007, when fishing according to the catch rule is implied for the following years.

Table 2. Level of Total stock size for the four coming years for different catch levels in 2007, and fishing according to the catch rule during 2008-10. All numbers are in '000 tonnes.

Prognosed catch in 2007 ('000 tonnes)	TSB			
	2008	2009	2010	2011
424 (= TAC)	1640	1777	1929	2070
435	1628	1767	1920	2063
445	1616	1757	1911	2055
466	1592	1736	1894	2042
488	1568	1715	1877	2027
509	1544	1695	1860	2014
530 (ICES progn. based on Fsq)	1513	1668	1838	1996

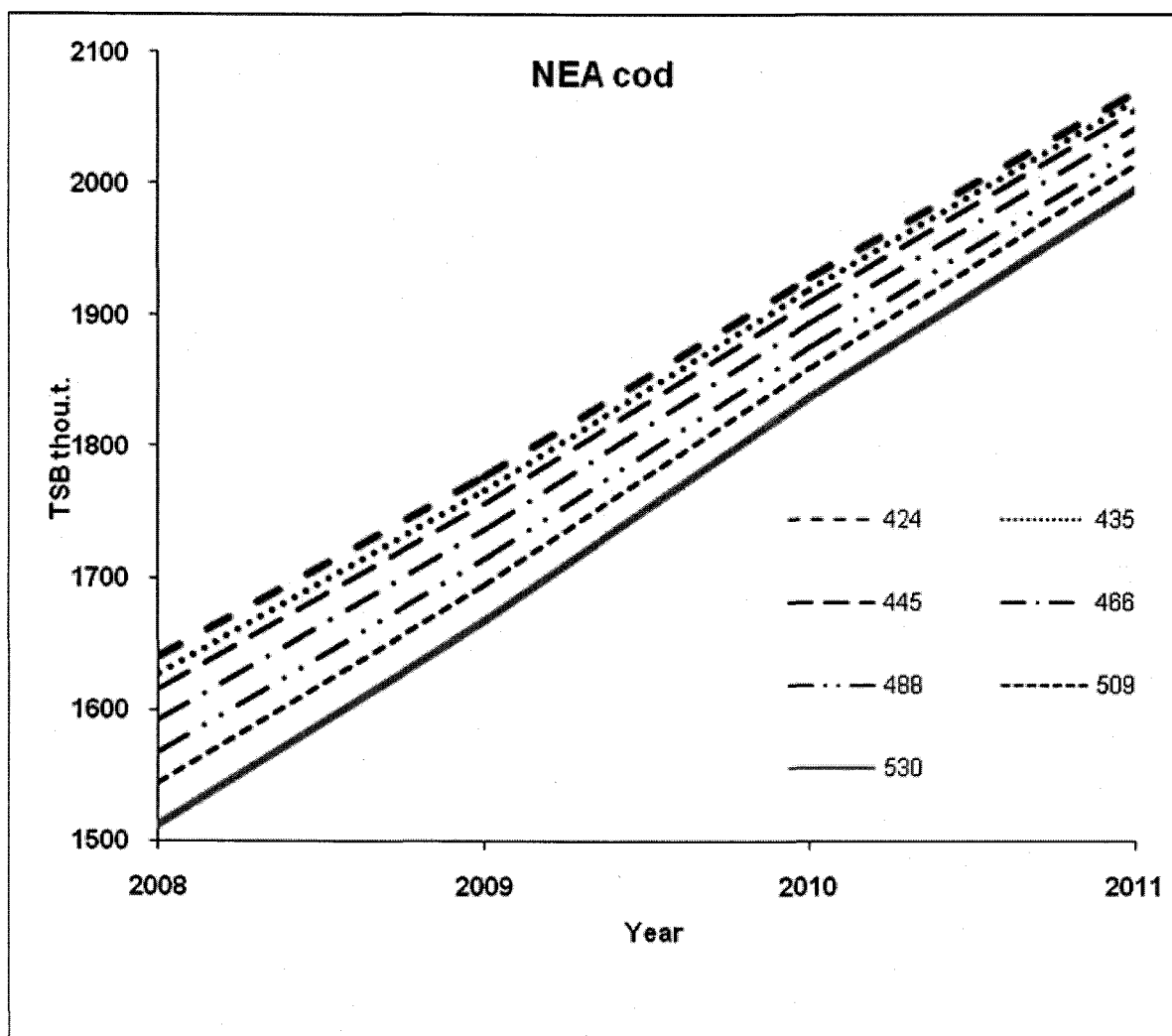


Figure 2 Total stock biomass in 2008-2010 as a function of catch in 2007, when fishing according to the catch rule is implied for the following years.

Table 3. Level of Spawning stock size for the four coming years for different catch levels in 2007, and fishing according to the catch rule during 2008-10. All numbers are in '000 tonnes.

Prognosed catch in 2007 ('000 tonnes)	SSB			
	2008	2009	2010	2011
424 (= TAC)	620	694	790	893
435	611	686	782	887
445	603	678	775	881
466	586	661	761	869
488	569	645	746	855
509	553	629	732	843
530 (ICES progn. based on Fsq)	531	608	713	828

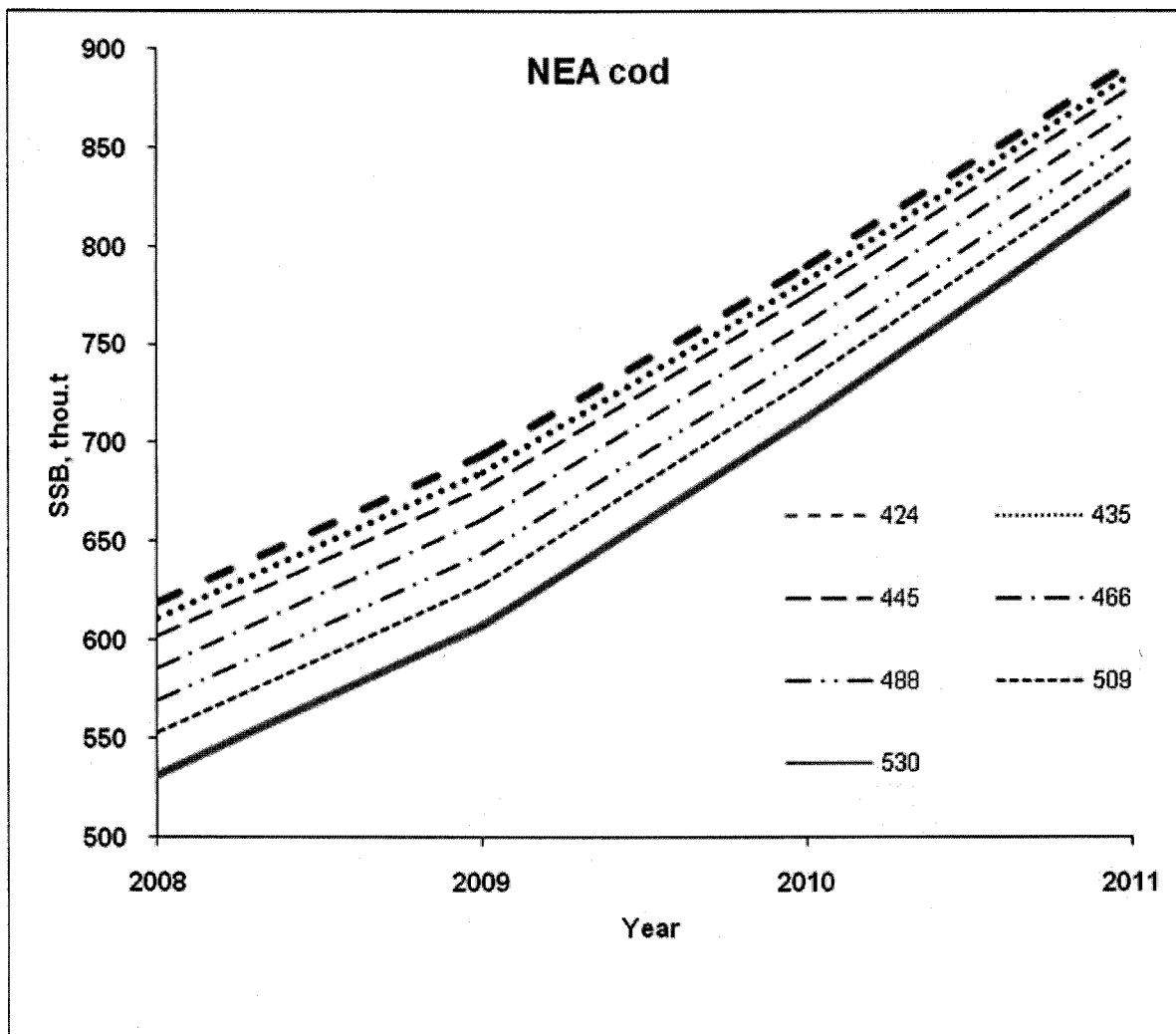


Figure 3 Spawning stock biomass in 2008-2010 as a function of catch in 2007, when fishing according to the catch rule is implied for the following years.

Retningslinjer for samarbeid ved gjennomføring av inspeksjoner av fiskefartøy i Det tilstøtende området i Barentshavet.

Utarbeidet på bakgrunn av protokolltekst i Den norsk-russiske fiskerikommisjons protokoll pkt 12.5, i Den 34. sesjon.

1. Iverksettelse av utveksling av fiskeriinspektører skal gjennomføres i felleskap mellom Sjef Kystvaktskvadron Nord og Sjef Kystvaktavdelingen i Den føderale sikkerhetstjenesten i Den russiske føderasjons grensedirektorat for Murmansk fylke.
2. Partene skal gjennomføre gjensidig utveksling av fiskeriinspektører i Det tilstøtende området når aktiviteten i området er høy, eller når noen av partene har mistanke om at det gjennomføres ulovlig fiske.
3. Engelsk skal benyttes som arbeidsspråk og om nødvendig kan tolk benyttes.
4. Inspektørene som utveksles skal ha et godt erfaringsnivå, samt god innsikt i inspeksjonstjenesten og kontrollsamarbeidet.

Før utveksling iverksettes skal operasjonssentralene til Kystvaktskvadron Nord og Kystvaktavdelingen i Den føderale sikkerhetstjenesten i Den russiske føderasjons grensedirektorat for Murmansk fylke utveksle følgende informasjon:

- Tidsperiode for utveksling
 - Utvekslingsfartøy
 - Posisjon og tidspunkt for overføring av personell
 - Personalialia på personell som skal utveksles
 - Informasjon på kontaktpersoner ved partenes operasjonsstab
 - Vurdere kontrolltiltak i operasjonsområdet om risikoobjekt før og under utveksling
 - Bruk av flyressurser i operasjonsområdet
5. **Fartøyene skal legge til rette for at utvekslingen gjennomføres på en effektiv, sikker, og kompetansehevende måte.**
- Partene skal vektlegge følgende:**
- Tilrettelegge for rask og god informasjonsutveksling mellom operasjonsstabene, herunder informere om, telefon, faks, og e-post adresser
- Utveksle informasjon på risikoobjekt før, og under utvekslingen.
 - Utveksle daglig informasjon over fiskeriaktiviteten og gjennomførte inspeksjoner
 - **Fartøyene skal:**
 - Inspektørene skal umiddelbart etter embarkering av kystvaktfartøy gis en sikkerhetsorientering
 - Ved overføring i sjøen skal inspektører være iført forskriftsmessig bekledning
 - Informere om fiskeriaktivitet og intensjoner for utvekslingen

- Gjennomgå kontrollmomenter og eventuelle risikoområder i operasjonssonen
- Gjennomgå felles retningslinjer for kontroll av sorteringsrist
- Anmode kystvaktssentrene om informasjon på kontrollobjekt ved behov
- Norske fiskeriinspektører kan inspisere norske fiskefartøy, norske transportfartøy samt tredje lands fiskefartøy og transportfartøy som er lisensiert av norske myndigheter fra russisk kystvaktplattform
- Russiske fiskeriinspektører kan inspisere russiske fiskefartøyer, transportfartøyer samt tredje lands fartøy som er lisensiert av russiske myndigheter fra norsk kystvaktplattform
- Under kontrollfasen skal det legges særlig vekt på gjensidig kompetanseheving og forståelse av kontrollmetodikk
- Det bør søkes å oppnå et variert faglig utbytte under utvekslingsperioden. Ulike fartøystyper bør inspiseres, og inspektørene skal på forhånd samarbeide om hvilke momenter som skal vektlegges under inspeksjonen
- Det skal legges til rette for at inspektørene skal kunne kontakte eget kystvaktfartøy på egnet sambandsmiddel
- Inspeksjonsfartøyene skal avtale kontakt mellom fartøyene på angitte tidspunkt
- Brudd på fiskeribestemmelsen skal varsles til begge parter operasjonssentral umiddelbart

Retningslinjene trår i kraft når de er underskrevet.

Murmansk 20 september 2007

 A. V. Sosov
 Kommandør
 Sjef Kystvaktavdelingen i FSB
 grensedirektorat i Murmansk fylke

 S. Olsen
 Kommandørkaptein
 Sjef Kystvaktskvadron Nord