



CCAMLR

COMM CIRC 11/99
SC CIRC 11/48

Monday, 10 October 2011

Notification for Scientific Research in 2011/12, 2012/13 and 2013/14 - New Zealand

TO ALL MEMBERS OF THE COMMISSION AND THE SCIENTIFIC COMMITTEE

In accordance with Conservation Measure 24-01, Members are advised that New Zealand has submitted a notification for a research survey to monitor the abundance of pre-recruit *Dissostichus mawsoni* in the southern Ross Sea (Subarea 88.1 SSRUs J, L and M) in January/February 2012, 2013 and 2014 (attached, see also SC-CAMLR-XXX/7). The research survey is expected to take approximately 40 tonnes (maximum 70 tonnes) of *Dissostichus* spp. per year.

The notification falls under paragraph 3 of Conservation Measure 24-01, and was submitted on 28 July 2011 for consideration by WG-SAM (WG-SAM-11/16) and subsequently WG-FSA (WG-FSA-11/47) and the Scientific Committee (SC-CAMLR-XXX/7).

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Executive Secretary

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Attch.

APPENDIX - FORMAT FOR REPORTING PLANS FOR FINFISH SURVEYS IN ACCORDANCE WITH PARAGRAPH 3 OF CONSERVATION MEASURE 24-01

CCAMLR MEMBER *New Zealand*

SURVEY DETAILS

A statement of the planned research objectives:

*It is proposed that a scientific random stratified research longline survey be carried out in the austral summer in the southern Ross Sea in 2011/12. The aim of the research is to develop a time series of relative abundance indices for pre-recruit (<100 cm TL) *D. mawsoni* in the southern Ross Sea. This first survey will assess the feasibility of developing such a time series and if successful would act as the first in the time series. It is envisaged that the same vessel would be used for each of the next three years subject to annual review. The specific research objectives are:*

1. *Programme objectives:*
 - a. *detect changes in relative abundance of recruitment over time; and*
 - b. *estimate variability and autocorrelation in recruitment.*
2. *Survey objective:*
 - a. *To establish the feasibility of developing a time series of longline surveys to monitor 80–100 cm TL toothfish in strata 881J and 881L in the southern Ross Sea using standardised gear in a standardised manner; and*
 - b. *To carry out experimental depth stratified fishing in 400–600 m depth adjacent to the survey boundaries to establish the most appropriate depth strata for future surveys.*

Survey Area/Subarea/Division

SSRUs 88.1J, 88.1L, 88.1M (ice permitting)

Geographical Boundaries:

Latitude from ~75°S to 78°S

Longitude from ~168°E to 170°W

Is a map of area surveyed (preferably including bathymetry and positions of sampling stations/hauls) appended to the format?

Yes (see attached research proposal – Figure 2)

Proposed dates of survey:

After the end of the 2011/12 fishing season (i.e., once the main Subarea 88.1 fishery is closed)

The survey is expected to run for 2-3 weeks between 2012/01/15 and 2012/02/28 (Y/M/D)

The same timing is proposed for 2012/13 and 2013/14

Name(s) and address of the chief scientist(s) responsible for planning and coordinating the research

Dr Ben Sharp

New Zealand Ministry of Fisheries

105 The Terrace

Wellington

New Zealand

And

Dr Stuart Hanchet
NIWA
PO Box 893
Nelson
New Zealand

Number of scientists 5 (*two scientists, in addition to one CCAMLR observer, one NZ observer, and one Industry scientist*) and crew 22 to be aboard the vessel.

Is there opportunity for inviting scientists from other Members? *Yes*

If so, indicate a number of such scientists 1 (*part of the 5 scientists+observers onboard*)

DESCRIPTION OF VESSEL

Name of vessel *San Aotea II*

Name and address of vessel owner *Sanford Limited*
22 Jelico Street, Auckland, New Zealand

Vessel type (dedicated research or chartered commercial vessel) *Commercial vessel*

Port of registration *Auckland*

Registration number *63631*

Radio call sign *ZM2534*

Overall length *46.5 (m)*

Tonnage *1079 GRT*

Equipment used for determining position *2 independent GPS systems (1 Furno and 1 JRC)*

Fishing capacity (limited to scientific sampling activities only or commercial capacity) *NA*

Fish processing capacity (if vessel type is commercial) *20-25 tons GWT (tonnes/day)*

Fish storage capacity (if vessel type is commercial) *565 m³ frozen and 100 m³ meal*

DESCRIPTION OF FISHING GEAR TO BE USED

Trawl type (i.e. bottom, midwater) *NA*

Mesh shape (i.e. diamond, square) and mesh size in codend (mm) *NA*

Longline *Mustad Autoline system using 11.5mm Integrated Weight (IW) longline with 15/O hooks*

Other sampling gear as plankton nets, CTD probes, water samplers, etc. (specify) *Continuous Plankton Recorder*

DESCRIPTION OF ACOUSTIC GEAR TO BE USED

Type *Simrad ES60*

Frequency *38kHz*

SURVEY DESIGN AND METHODS OF DATA ANALYSES

Survey design (random, semi-random) *Random stratified longline survey – see details in the appended application to conduct scientific research*

Target species *Dissostichus mawsoni*

Stratification (if any) according to:

Depth zones: *400–500 m, 500–600 m, 600–800 m*

Fish density: *Two areas in the south of strata 881J and 881L which have high density of pre-recruit (<100 cm) toothfish – see map.*

Other (specify)

Duration of standard sampling stations/hauls: *Target soak time 18 hours (± 6 hours) subject to environmental conditions (ice, weather etc.)*

Proposed number of hauls: *It is proposed to carry out a total of 63 hauls in four strata (subject to ice conditions, weather, catch limits etc.)*

Proposed sample size (total): *40 tonnes (maximum 70 tonnes) per year - see the appended application to conduct scientific research for details)*

Proposed methods of survey data analyses (i.e. swept area method, acoustic survey): *the swept area approach will be used to provide estimates of relative abundance by age for each stratum - see attached research proposal*

DATA TO BE COLLECTED

Haul-by-haul catch and effort data in accordance with CCAMLR Form C4 for reporting results of fishing for research purposes: *Dissostichus mawsoni*.

Fine-scale biological data in accordance with CCAMLR Forms B1, B2 and B3: B2

Other data (as applicable):

- *Up to 100 toothfish per set analysed for length, weight, and sex.*
- *Up to 30 toothfish per set examined biologically (including length, weight, sex, maturity status, gonad weight, and otoliths.*
- *Additional otoliths will be retained to ensure a minimum of 10 pairs of otoliths (5 males & 5 females) will be collected per 1 cm length class between 60 and 100 cm for each of the two key strata: 881J and 881L.*
- *Samples of muscle tissue for toothfish and other key prey species (including Channichthyiids and Nototheniids) will be collected for stable isotope studies.*
- *The stomach contents of up to 200 representative toothfish and 50 of other key fish species will be retained (focusing on those fish sampled for trophic studies to allow for cross-comparison).*
- *Bycatch sampling as per Conservation Measure 24-01.*
- *Continuous Plankton Recorder en route to and from the fishing grounds.*
- *Acoustics data collected during the entire duration of the trip.*
- *Five *D. mawsoni* tagged per tonne*