

CIRCULAR COMMUNICATION TO MEMBERS OF THE SCIENTIFIC COMMITTEE
AND INVITED PARTICIPANTS
IWC.SC.135

Joint CCAMLR-IWC Workshop, Hobart, Australia, 11–15 August 2008

The Scientific Committees of the International Whaling Commission (SC-IWC) and the Commission for the Conservation of Antarctic Marine Living Resources (SC-CAMLR) have agreed to hold a joint workshop to review input data required for ecosystem models being developed to provide management and conservation advice on krill predators in the Antarctic marine ecosystem.

This Workshop will be held at the CCAMLR Headquarters in Hobart, Australia, 11–15 August 2008. Please find below and attached background information, terms of reference and the types of expertise that will be required, as well as information with respect to meeting arrangements, accommodation and visa requirements etc.

The workshop is expected to provide a forum for discussion amongst experts on Southern Ocean marine ecosystems in order to obtain a detailed appreciation of the input data available for use in CCAMLR and IWC models. A number of scientists identified by the Steering Committee with specific expertise (e.g. data holders, active field scientists, statisticians and modellers) will be invited to attend the workshop. There will be limited space for additional scientists. If you would like to participate in the Workshop, please complete and return the attached form to the IWC Secretariat (jemma.miller@iwcoffice.org) by **12 May 2008**. We will collate responses and pass them on to the Steering Committee and the CCAMLR Secretariat who are handling local arrangements.

Dr Nicky Grandy
Secretary to the Commission

CCAMLR-IWC WORKSHOP - BACKGROUND INFORMATION

(1) Model Requirements and Metadata

Despite the differences in current models developed and utilised by CCAMLR and the IWC (i.e. primarily differences in spatial scale and taxa of interest) they collectively incorporate knowledge (explicitly or implicitly) on the following factors:

- (a) population - biomass/numbers in different regions of the Southern Ocean, trends in abundance, population structure, including age/size/spatial structure;
- (b) habitat utilisation – movement, key habitats and environmental variables (drivers of key population processes), foraging areas;
- (c) population growth rates – growth of individuals, reproductive output, recruitment, mortality rates, density-dependent processes;
- (d) foraging activities – diet, foraging success, consumption rate, competition;
- (e) catch – biomass/numbers taken and size structure in different regions over time.

The most important input for this modelling work is the abundance of key taxa and, where possible, trends in abundance. Uncertainty in these estimates needs to be considered when attempting to model time trends in population and food web dynamics. Given these requirements, a compilation of abundance and associated information on likely bias, precision and comparability of any series over time will be a key output of the workshop.

Metadata (see attached draft metadata tables being considered by the expert groups) are being coordinated and compiled by the Australian Antarctic Data Centre (AADC) based at the Australian Antarctic Division (AAD). During the workshop the approach will be for the expert groups to review and provide commentary on the datasets which will form the basis of discussion for the modelling group. This will result in each metadata record including a commentary of issues with the dataset that may need to be resolved or accounted for in the modelling work.

(2) Terms of reference

The workshop is being managed by a Joint Steering Group (JSG) which was established in 2006, consisting of representatives of both SC-CAMLR and SC-IWC. The JSG will run the workshop according to the following terms of reference:

- (a) for models on the Antarctic marine ecosystem, and in particular predator-prey relationships, that could be developed for providing management and conservation advice relevant to CCAMLR and IWC, consider the types, relative importance and uncertainties associated with input data for those models, in order to understand what is needed to reduce uncertainties and misunderstandings in their use;
- (b) review of the available input data from published and unpublished sources that are currently available for such models;
- (c) summarise the nature of input data (e.g. abundance estimates, trend estimates, foraging scales, seasonal diet etc), based on metadata, by describing methodology, broad levels of uncertainty, time series, spatial extent and determine the appropriate scale at which those input data are relevant to these modelling efforts;
- (d) identify and prioritise the gaps in knowledge and types of analyses and field research programs needed to reduce important uncertainties in ecosystem models being developed for CCAMLR and IWC and how scientists from the two Commissions can best collaborate and share data to maximise the rate of development and scientific quality of modelling efforts and input data.

(3) Expert groups

In preparation for the workshop the Joint Steering Group has tasked small groups of experts to:

- (a) compile metadata of the input data for their area of expertise,
- (b) review the input data and their inherent levels of uncertainty with respect to their potential effects on model outcomes.

The categories for ecological and environmental input data are:

- (a) cetaceans – toothed, baleen;
- (b) seals – pack ice seals, fur seals;
- (c) birds – penguins, flying birds;
- (d) mesopelagic and epipelagic predators – fish and squid;
- (e) krill;
- (f) other biological components – primary production, zooplankton;
- (g) environmental components – sea ice, sea temperature and ocean processes

Each group is currently developing a written review and the reports from each group will be synthesised into a strategic report. The strategic report will provide the foundation for discussion at the workshop on how these input data can be used in the development of the ecosystem models for respective use by the SC-CAMLR and the SC-IWC. The strategic report will be circulated to all participants prior to the workshop.

(4) Expected outcomes from the workshop

- (a) Input data available from published and unpublished sources for models reviewed.
 - (i) Nature of input data based on metadata summarised.
 - (ii) Types, magnitude and relative importance of uncertainties with respect to their use in CCAMLR and IWC models.
- (b) Requirements needed to reduce uncertainties, and misunderstandings in the use of data identified and understood.
 - (i) Gaps in knowledge prioritised and identified
 - (ii) Types of analyses and field research programs needed to reduce important uncertainties in ecosystem models being developed for CCAMLR and IWC identified and prioritised.
- (c) Best approaches to collaboration and data sharing between the IWC and CCAMLR to maximise the rate of development and scientific quality of modelling efforts and input data identified.

Reporting

Nominated rapporteurs will work with Group Convenors to record discussions from each group and develop the overall workshop report. A reporting framework will be provided to ensure that group reports are similarly structured and cover the necessary information required for the overall report. A standard *pro-forma* will also be provided to expert groups for reporting group discussions in plenary.

CCAMLR-IWC WORKSHOP - GENERAL INFORMATION

Venue information

The CCAMLR-IWC Workshop will be held in Hobart at the Commission's Headquarters at 181 Macquarie Street, Hobart, from 11 to 15 August 2008. Participants are requested to provide the IWC Secretariat with an official notification of the names and postal and email addresses of workshop participants by 12 May 2008. (See below in respect of visa applications).

Computer access

Participants are advised to bring their own laptop computers for use during the workshop. Network cables and wireless facilities will be provided to connect laptops to a server and the Internet. Participants are also requested to provide their own power source plug converters. There will be a daily download limit for the workshop based on reasonable use at previous meetings at the Secretariat. Any special requests in regards to computer access can be provided to the Secretariat. Participants will be informed of the limits at the beginning of the workshop.

Accommodation

A list of various types of accommodation available in Hobart and a map showing the proximity of some of these to the CCAMLR Headquarters are attached, and also available on the CCAMLR website under the Scientific Committee members only section. Participants should deal directly with the accommodation place of their choice.

Visas

Overseas participants travelling to Hobart to attend CCAMLR meetings are urged to pay particular attention to the Australian visa requirements, details of which are attached and also available from the CCAMLR website under the Scientific Committee members only section. This information includes a Personal Information Form (attached) which is to be completed for each person attending the workshop and submitted to the Secretariat at least two months prior to the person's intended date of departure. The CCAMLR Secretariat is only in a position to assist with visa applications, if necessary, once this information is received. Please note that this form is for visa application purposes and does not constitute official notification of participation in the workshop.

CCAMLR-IWC WORKSHOP (HOBART, AUSTRALIA, 11- 15 AUGUST 2008)
NOTIONAL PROGRAMME¹

Day 1

- **Registration and coffee**
- **Plenary:** Welcome and introduction to the workshop (20 minutes each)
 - o Model requirements (20 minutes each)² CCAMLR models Andrew Constable IWC models Nick Gales
- **Plenary:** Presentations from Data Group Convenors - synthesis of reviews (20 mins each).
 - o **Group 1**

Dr Russell Leaper	Toothed whales
Dr Alex Zerbini	Baleen whales
 - o **Group 2**

Dr Colin Southwell	Pack ice seals
Dr Keith Reid	Fur seals
Dr Phil Trathan	Penguins
 - o **Group 3**

Dr Karl-Hermann Koch	Fish
Prof Paul Rodhouse	Squid
Dr Steve Nicol	Krill
Dr Angus Atkinson	Zooplankton Protists
 - o **Group 4**

Dr Pete Strutton	Protists
Dr Rob Massom	Sea Ice
Prof Eileen Hofmann	Ocean Processes
- **Plenary:** Setting the scene and discussion (1hour)
- **Plenary:** Overview of report text to date (30 mins)

Day 2

- **Plenary:** Program for Day 2
- **Expert groups (data and modelling):** review and commentary on strategic report
- **Plenary:** Synthesis and work program for remainder of workshop and post-workshop
- **Plenary:** Overview of report text to date (30 mins)

Day 3

- **Plenary:** Programme for Day 3
- **Data groups:** quality control, commentary and prioritisation of datasets
- **Modelling group:** review of datasets for use in models based on outcomes of Day 2 discussions, develop outline of group discussions for Day 4
- **Plenary:** Synthesis and feedback from modelling group.
- **Plenary:** Overview of report text to date (30 mins)

Day 4

- **Plenary:** Program for Day 4
- **Data groups:** address feedback from Modelling group day 3
- **Modelling group:** results of Day 3 and other issues (tackling particular datasets, uncertainty, integrating across datasets etc).
- **Plenary:** Synthesis and feedback from modelling and data groups.
- **Plenary:** Overview of report text to date (30 mins)

Day 5

- **Plenary:** Discussion of outcomes – general discussion on workshop outcomes and how to proceed in CCAMLR and the IWC
- **Plenary:** Report adoption (afternoon)

Close of workshop

¹ The first day will be the only formally organised day. The remainder of the workshop will be guided by the groups and the needs for interaction. This programme is one suggested way of proceeding.

² Along with the 4 main data groups, a group will be established for modellers to help guide the requirements from each of the data groups.

DRAFT TABLES FOR METADATA

Population input data

Category	Fields
Taxon	species, guild or group
Input data table	(1) Location (CCAMLR or IWC statistical unit, specific location) (2) (2) Year (3) Time of year (4) Abundance (relative or absolute) (5) Stock structure/differentiation (6) Sampling error (SE,CV)
Data description	units of measurement
Population structure	size/age distribution, distribution in space, changes in time, genetic evidence of population structure
Sampling effort	spatial distribution of measurement effort (e.g. maps of survey tracks/effort), limits to spatial application of the data (points, polygons); beginning and end dates of sampling series; regularity of data collected within time frame
Field method	
Estimation method	
Description of uncertainties	potential sources of bias or error not included in the quantitative estimates above
Source	source database, reference

Habitat utilisation

Spatial attributes of habitats Category Fields

Category	Fields
Taxon	species, guild or group
Primary habitat	identifiable areas of primary habitat
Key variables defining habitat	depth range, relationship to ice etc.
Method for determining habitat	
Description of uncertainties	broad estimate of uncertainty - high, medium, low; known issues with the data
Source	source database, reference

Temporal partitioning of habitat and movement Category Fields

Category	Fields
Taxon	species, guild or group
Input data table	movement rates between areas (possibly stage-specific) residence times in areas timing of residency
Method for determining movement and residency	
Description of uncertainties	broad estimate of uncertainty - high, medium, low; known issues with the data
Source	source database, reference

Population growth rates

Category	Fields
Taxon	species, guild or group
Function	reproduction/recruitment, mortality, individual growth
Input data	(1) Location (2) Year (3) Time of Year (4) Parameter set (5) Errors in parameters and/or function
Sampling method	
Estimation method	
Description of uncertainties	broad estimate of uncertainty - high, medium, low; known issues with the data
Source	source database, reference

Foraging activities

Diet

Category	Fields
Taxon	species, guild or group
Input diet data	(1) Location (2) Year (3) Time of Year (4) Prey taxon (5) Frequency/abundance in diet (6) Errors in estimates
Sampling method	
Estimation method	
Description of uncertainties	broad estimate of uncertainty - high, medium, low; known issues with the data
Source	source database, reference

Foraging functions Category Fields

Category	Fields
Taxon	species, guild or group
Function	Data inputs for use in models and/or estimates of parameters for foraging functions such as Type I, II or III models
Input data	(1) Location (2) Year (3) Time of Year (4) Prey taxon (5) Per capita consumption of prey taxon (6) Parameter set (7) Competitive interactions (8) Errors in parameters and/or function
Sampling method	
Estimation method	
Description of uncertainties	broad estimate of uncertainty - high, medium, low; known issues with the data
Source	source database, reference

Catch data

Category	Fields
Taxon	species, guild or group, including primary target and by-catch species
Input data table	1) Location (CCAMLR or IWC statistical unit, specific location) 2) Year 3) Time of year 4) Catch 5) Error (SE,CV)
Data description	units of measurement
Catch structure	composition of catch as size and/or age, distribution in space, changes in time
Sampling effort	details of data acquisition scheme (observers, ship log etc) and, when subsampling occurs, what the spatial distribution was of measurement effort
Field method	
Estimation method	
Description of uncertainties	broad estimate of uncertainty - high, medium, low; known issues with the data
Source	source database, reference

AUSTRALIAN VISA REQUIREMENTS

GENERAL

All overseas travellers, other than Australian and New Zealand passport holders, must obtain the appropriate Australian visa or Electronic Travel Authority (ETA) before embarking on their travel to Australia.

VISA OPTIONS FOR IWC AND CCAMLR REPRESENTATIVES

(1) Electronic Travel Authority (ETA)

A participant who holds a passport issued by an ETA-eligible country can obtain an electronic, 'virtual', visa that is granted by the Australian Department of Immigration and Citizenship (DIAC) computer system and is linked to the participant's passport. Application can be made via a travel agent at the time of making flight arrangements or at the check-in counter at time of departure, or via the Internet at www.eta.immi.gov.au

There are two types of business visitor ETA:

- (a) **Fee-Free Business Short Validity ETA** An ETA allows the holder to enter Australia as many times as they wish during the 12-month period from date of grant, and to remain in Australia for a maximum period of three months from the date of each entry. The ETA does not attract any charge. If applying via the Internet, the applicant will be required to pay a service fee, currently A\$20. Some travel agents and airlines also impose a service fee for processing the ETA.
- (b) **Business Long Validity ETA** Valid for travel to Australia for 10 years or the life of the passport, whichever is sooner. It allows the holder to enter Australia on business as often as they wish during this period, and allows them to remain in Australia for a maximum of three months from the date of each entry. This ETA cannot be obtained via the Internet. Currently it attracts a charge of A\$65, and is available through travel agents and airlines (who will also probably charge a service/processing fee). As the charges change every July, please refer to the following webpage for correct charges: www.immi.gov.au/allforms/990i/business-visits.htm

The ETA is 'read' by TIETAC (*The International Travel Information and Reservation System* used by all international airlines) and APP (Australia's *Advanced Passenger Processing System*) that electronically 'clears' the ETA holder for entry to Australia at the time they board their flight to Australia. There is no visa label in the traveller's passport. To avoid the possibility of delays at the time of departure, it is recommended that the ETA be obtained at the time of booking flights to Australia. Travellers should also be aware that they may not be automatically granted an ETA since they may be referred to their nearest visa office for further processing. Such situations occasionally arise if DIAC is alerted by the traveller's details and then requires more time to scrutinise the application.

(2) Label Visas

Participants who hold passports issued from countries that do not have ETA arrangements with Australia require a Label Visa. The type of visa recommended by DIAC for travellers attending CCAMLR meetings is the Subclass 456 Visa. This is issued to participants who prefer to use their private passports and require a multiple-entry visa that is valid for a period of travel specified by DIAC, with a maximum period of three months per stay on each entry. This category of visa currently attracts a charge of A\$65. As the charges change every July, please refer to the following webpage for correct charges: www.immi.gov.au/allforms/990i/business-visits.htm

DIAC is prepared to waive this charge if:

- (a) The official Commission Member's Contact provides the necessary information on each participant to CCAMLR at least two months prior to the intended date of travel. **[NB the IWC Secretariat will collate this information on behalf of IWC Scientific Committee members];**
- (b) A complete visa application package is lodged with the nearest Australian visa office no later than six weeks prior to the intended date of travel.
- (c) The CCAMLR Secretariat provides DIAC with copies of the 'invitation' circular/letter sent to the individual Contracting Parties when the preliminary meeting agendas are circulated (65 days prior to the meetings) in accordance with Rule 6 of the *Commission Rules of Procedure*.

The following information must accompany all applications for a Subclass 456 Visa:

- (i) two (2) passport-size photographs of the visa applicant;
- (ii) a fully completed and signed Form 456;
- (iii) the applicant's current and valid passport.

(3) VISA FACILITATION PROCESS

To facilitate visa processing for all categories of visa:

- (a) The CCAMLR Secretariat will provide DFAT and DIAC with the names and addresses of the official Commission Contacts for each Participant.
- (b) The CCAMLR Secretariat will provide DIAC with copies of the 'invitation' circular/letter sent to the individual Contracting Parties when the preliminary meeting agendas are circulated (65 days prior to the annual meetings) in accordance with Rule 6 of the *Commission Rules of Procedure*.
- (c) At least two months prior to the intended date of departure, the official Commission contacts will provide the CCAMLR Secretariat with the details for each participant on the attached form – email: ccamlr@ccamlr.org; tel: +61 3 6210 1111; fax: +61 3 6224 8744. **[NB the IWC Secretariat will collate this information for IWC Scientific Committee Members and pass it on to the CCAMLR Secretariat on their behalf].**
- (d) The information received will be promptly forwarded to DIAC for onward transmission to the relevant visa offices overseas. If necessary, DIAC will communicate with the CCAMLR Secretariat or the official Commission contact to address potential problems. The CCAMLR Secretariat will strive to ensure that the issues raised by such communication are addressed in a timely and satisfactory manner.

DIAC will promptly distribute the list of participants and their details to the responsible officer(s) at the relevant Australian visa offices overseas. This process must commence at least two (2) months prior to the intended dates of departure for Australia. Early notification will allow DIAC staff to identify CCAMLR-related applications when they arrive, which means that they will not enter the general caseload queue. Notwithstanding the constraints induced by security considerations, early notification of participants will also enable expedited processing of their visa applications.

Providing participants lodge their properly completed visa applications, together with their passport, six (6) weeks prior to the intended date of departure for Australia, it is not envisaged that there will be delays in the processing of the application. However, it cannot be guaranteed that the processing of visa requests after this deadline will be completed in time to attend the relevant meeting. Nevertheless, every effort will be made to ensure that participation in the meeting is possible.

If there is a problem with any participant's application, the Australian mission concerned will immediately contact DIAC staff who will make every effort to resolve the problem by liaising with both the relevant Commission Contact and the CCAMLR Secretariat.