

Inshore Finfish Fisheries and Freshwater Eels

BCO2009-04

Catch per unit effort analysis of the commercial blue cod fishery in BCO 4

Project Title: Catch per unit effort analysis of the commercial blue cod fishery in BCO 4

Project Code: BCO2009-04

Start Date: 1 October 2009

Completion Date: 30 September 2010

Vessel Use: Nil

Overall Objective:

1. To characterise the BCO 4 fishery
2. To analyse trends in CPUE of the BCO 4 stock

Specific Objectives:

1. To characterise the BCO 4 fishery
2. To analyse CPUE trends in commercial BCO 4 commercial fishery up to the end of 2008/2009.

Note:

Research providers should also take cognisance of recent progress made in data grooming for CPUE standardization for inshore finfish including methods used to reconcile landings with estimated catch. Potential science providers are referred to the Kendrick and Walker (2004) and Starr et al. (2007) reports for further details.

Reporting Requirements:

Research Reporting

Objective 1

1. To submit to the Chief Scientist MFish a Progress report as specified in Research Reporting form 4 by 14 March 2010.
2. To present the report in 1 above to meetings of the Southern Inshore Fishery Assessment Working Group in July 2010 in Wellington. Presentations to more than one meeting may be required.
3. To submit to the Chief Scientist MFish a Final Research Report as specified in Research Reporting form 5 or a draft Fishery Assessment Report as specified in Research Reporting form 7 by 30 September 2010.

Project Update Reports

No Project Update Reporting is required for this project.

Work In Progress Reports

Monthly Work In Progress Reporting is required for this project in accordance with the Conducting Research with the Ministry document.

Data Reporting

To submit any data generated, collected or modified during the course of this project to the Research Data Manager, MFish by 30 September 2010.

Rationale:

General

Blue cod is a bottom-dwelling species endemic to New Zealand. Although distributed throughout New Zealand near foul ground to a depth of 150 m, they are more abundant south of Cook Strait and around the Chatham Islands. Growth may be influenced by a range of factors, including sex, habitat quality and fishing pressure relative to location. Size-at-sexual maturity also varies according to location.

Blue cod is predominantly an inshore domestic fishery with very little deepwater catch. The major blue cod fisheries in New Zealand are off Southland and the Chatham Islands. In BCO 4 the commercial fishery landed 736t in the 2006/07 fishing year, making BCO 4 the second most important BCO fishery nationally. Recreational and customary non-commercial blue cod catch has not been estimated from this region.

This research is necessary because:

- blue cod support important commercial, recreational, and customary fisheries;
- current stock status of blue cod is unknown, no formal stock assessments are undertaken for this species;
- the project has been identified as integral to the blue cod component of the New Zealand Inshore Fisheries Medium Term Research Plan; and

Within this context, this research project is considered a **high** priority.

Objective 1

Results of the characterisation will be used to determine the data grooming procedures for the CPUE analysis and which fisheries need to be assessed and the spatio-temporal analyses required in order to ensure the CPUE analysis is reflective of the fishery. The characterisation will also provide valuable input for the fisheries plan that is presently being developed.

Objective 2

Alternative indices based on landed and estimated catch should, where possible, be calculated for BCO 4. Research providers should also take cognisance of recent progress made in data grooming for CPUE standardization for inshore finfish including methods used to reconcile landings with estimated catch.

Weighting of Objectives:

Weightings indicate the relative importance of each of the objectives. The weightings for the objectives in this project are (in order): 0.33 and 0.66.