Gabrielle Nowara

Professional history:

Gabrielle has worked in fisheries research for more than 20 years in Victoria, Western Australia and Tasmania. She holds a Bachelor of Science degree from the University of Melbourne and a Graduate Diploma (Fisheries) from the Australian Maritime College. She received a distinction for her thesis on diel migration of Gould's squid in Bass Strait. In Victoria, after first spending time collecting data on a Japanese squid fishing vessel in Bass Strait, she managed the database of all Victorian commercial fisheries statistics ensuring the quality and accuracy of the data. In Western Australia she worked with both tropical and estuarine fisheries, including biological sampling, juvenile surveys, fish ageing and data analysis. She managed the collection of logbook data, and participated in liaison and presentations to the fishing industry and recreational fishers. She coordinated and participated in the ageing of sea mullet and other estuarine species, beach seine surveys of waters around the south-west WA coast for juveniles of Australian herring, Western Australian salmon, King George whiting, yellow-finned whiting, sea mullet, yellow-eye mullet and tailor in a project to develop a robust recruitment index for these species. She organised volunteer fishing groups to participate in research angling surveys. Each year she completed data analysis and stock assessments for WA's annual State of the Fisheries documents. She was contracted by the Food and Agriculture Organisation of the United Nations to analyse and report on the reporting accuracy of global fisheries statistics. She joined the Fish and Fisheries Group at the AAD in 2006 and has been instrumental in developing an ageing method for Patagonian toothfish. She participates in the design and analysis of the annual research trawl survey data included in the annual stock assessments of toothfish and contributes papers for the Fish Stock Assessment Group of CCAMLR. Currently she is involved in the validation of toothfish ageing using electron microscopy.

Key interests:

- fisheries and fish biology
- fish ageing
- stock assessment
- ecological modelling for sustainable fisheries
- ensuring the accuracy and quality of data
- the Antarctic and sub-Antarctic environment

Selected outputs:

Ayvazian, S., **Nowara, G.**, Craine, M. and Gaughan, D. (2005) The development of a rigorous sampling methodology for a long-term annual index of recruitment for finfish species from south-western Australia. Final report, FRDC project 1999/153. Dept. of Fisheries, WA and Fisheries Research and Development Corporation, 144 p.

Nowara, G.B. and Walker, T.I. (1998) 'Effects of solar day, jigging method and jigging depth on catch rates and size of Gould's squid, *Nototodarus gouldi* (McCoy), in southeastern Australian waters.' *Fisheries Research*, **34**, 279-288.

Welsford, D.C., **Nowara, G.B.**, Candy, S.G., McKinlay, J.P., Verdouw, J.J. and Hutchins, J.J. (2009) Evaluating gear and season specific age-length keys to improve the precision of stock assessments for Patagonian toothfish at Heard Island and McDonald Islands. Final Report for FRDC Tactical Research Fund project 2008/046. Fisheries Research and Development Corporation, Australian Antarctic Division, Department of the Environment, Water, Heritage and the Arts.