

## **Resources Research Surveys and Assessment**

This is the bread and butter research that is the basis of our advice to the Minister. It involves advising, in most cases annually, on the Total Allowable Catches and/or Total Allowable Effort to be applied in the 22 key fisheries sectors. Backing this advice is fieldwork and fisheries surveys that collect data on the catches, abundance, distribution and biology and associated environmental information. Other systems are fisheries- and observer-based data collection, a system of scientific working groups that meet regularly, teams of scientists working on biological and environmental information to provide input to the working groups, regular status reports on the key resources, and research infrastructure such as laboratories, vessels, small boats and equipment required to support these activities.

Underpinning all the recommendations and advice provided to management is an Ecosystem Approach to Fisheries (EAF), defined by the FAO: "An ecosystem approach to fisheries strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries."

With regard to EAF, the task of the Chief Directorate is to undertake relevant research in order to achieve the above in the context of South African fisheries. For example, there are strong interactions between fisheries and the surrounding environment. Such interactions include impacts on fisheries, such as pollution, predation, climate change, harmful algal blooms, etc., and also the impacts of fisheries on the environment, including issues around accidental catches of non-utilized organisms, seabird mortality in fishing gear, etc. Research is conducted to provide scientific advice to best manage these impacts, and to support the implementation of the EAF management to which South Africa is committed.