

## CHALLENGES FOR THE NEW MILLENNIUM FOR STOCK ASSESSMENT SCIENTISTS

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### ABSTRACT

In the 1990's several economically important marine fisheries collapsed or showed signs of extreme hardship owing to overcapitalization and excessive fishing pressure on the resources. Public concern was raised and demands voiced for more prudent fishery management practices. The United Nations responded and developed international guidelines, such as the FAO Code of Conduct for Responsible Fishing and the UN Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement. These guidelines task fishery managers to take prudent steps to ensure the long-term viability of fisheries and fishery resources. Included in the guidelines are two particular demands that will challenge stock assessment scientists in the new millennium. They are application of the precautionary approach and the inclusion of ecological considerations in assessments and management advice.

High-lighted in the presentation are examples from the central-western Pacific skipjack tuna fishery and the eastern Pacific thresher shark fishery where insufficient information is affecting stock assessments. The shortcomings are further linked to the new challenges of applying the precautionary approach, such as reference points, and ecological considerations, such as predator-prey and oceanographic-regime shift.