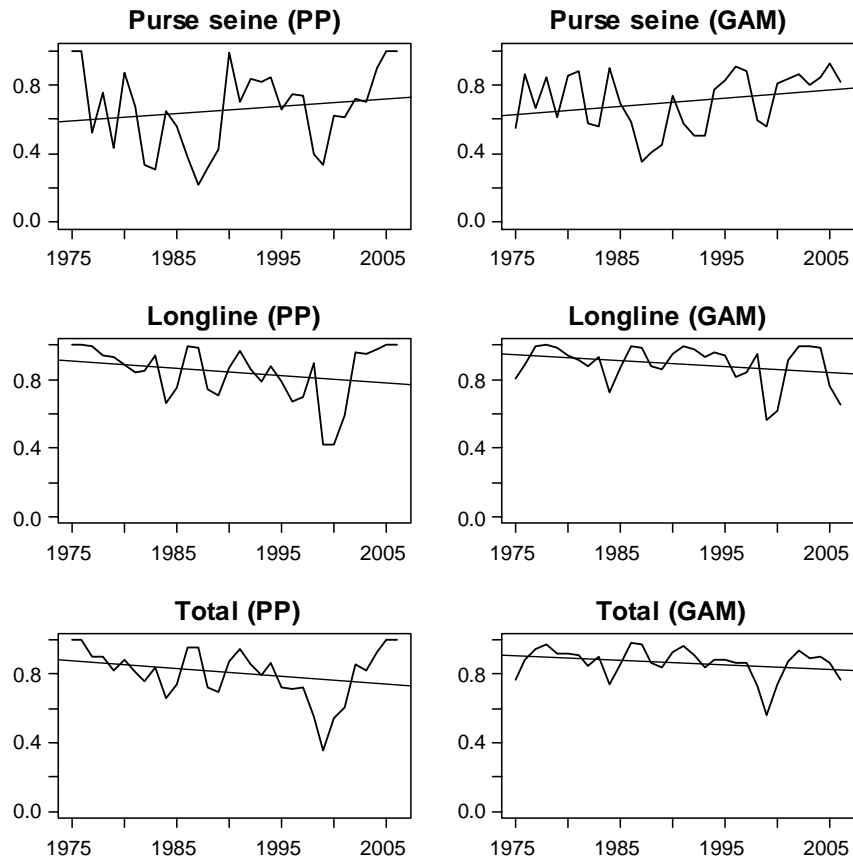
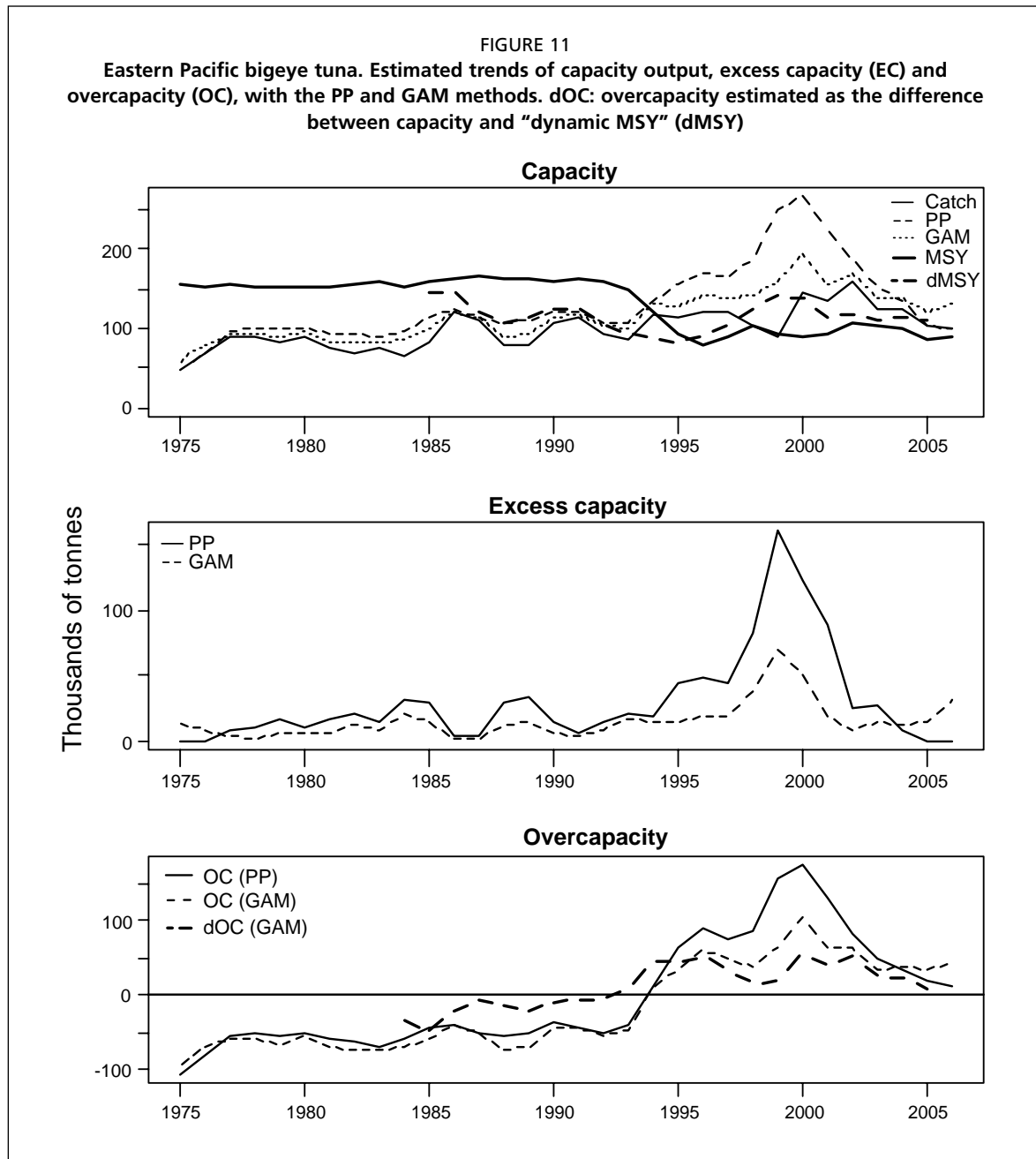


FIGURE 10
Eastern Pacific bigeye tuna. Estimated trends in capacity utilization by gear type
and for all gears combined





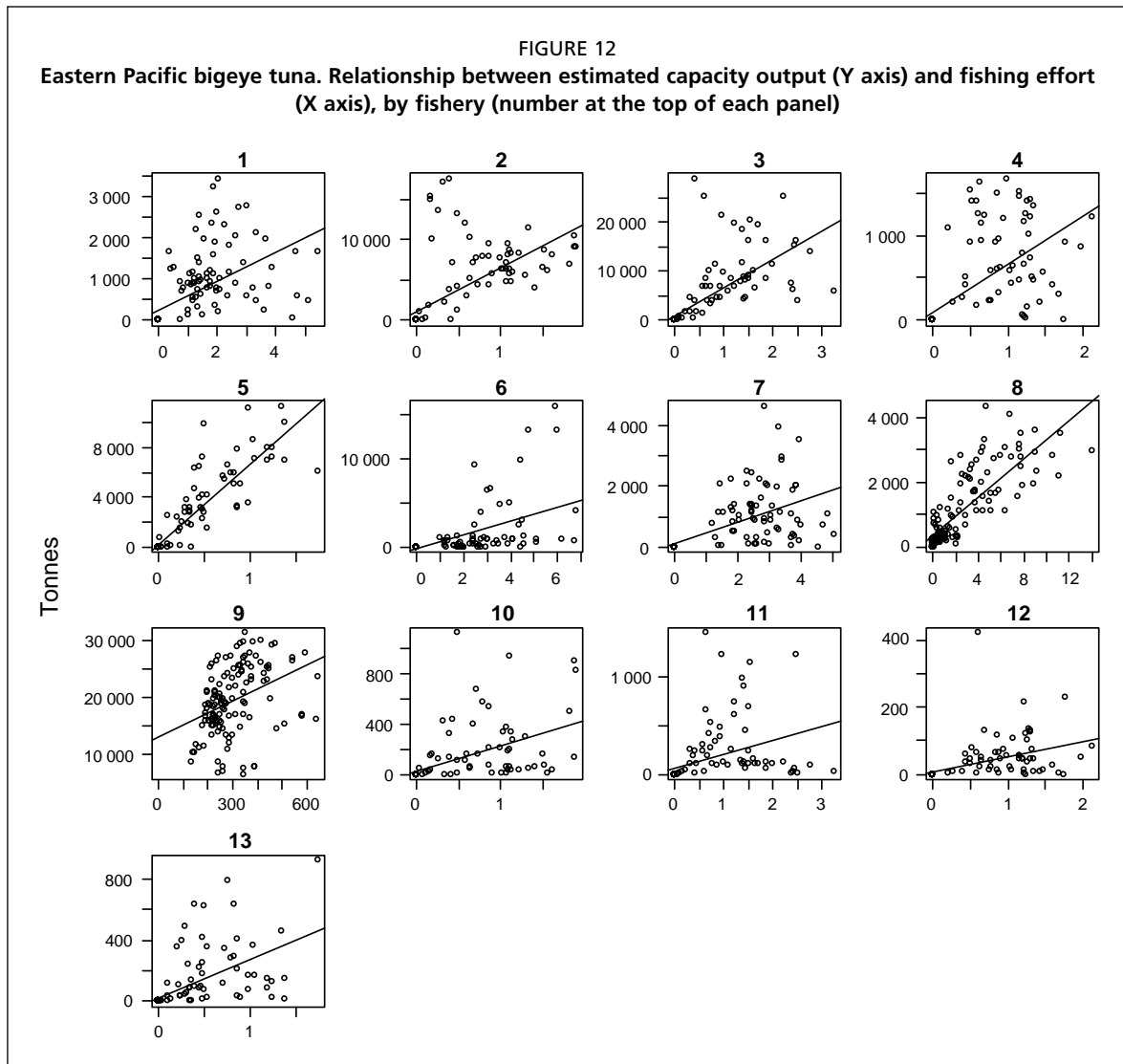
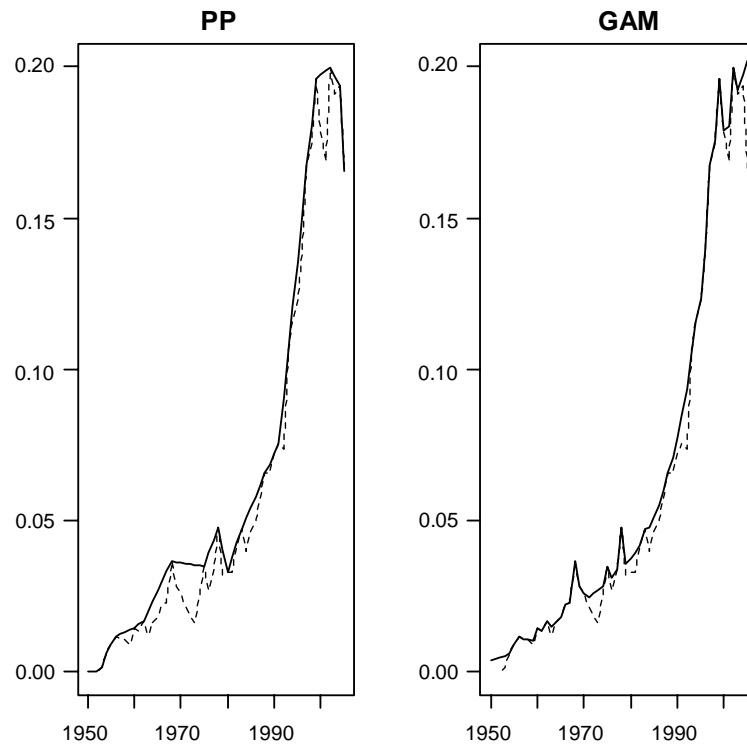


FIGURE 13
Indian Ocean bigeye tuna. Example of application of PP and GAM methods to fishing mortality of the purse-seine fishery



The dark lines are the outputs from MULTIFAN-CL and the dashed line is the estimate of fishing capacity.
Figure adapted from Arrizabalaga *et al.* (2009).

FIGURE 14
Indian Ocean bigeye tuna. Estimated trends in capacity utilization by gear type and for all gears combined

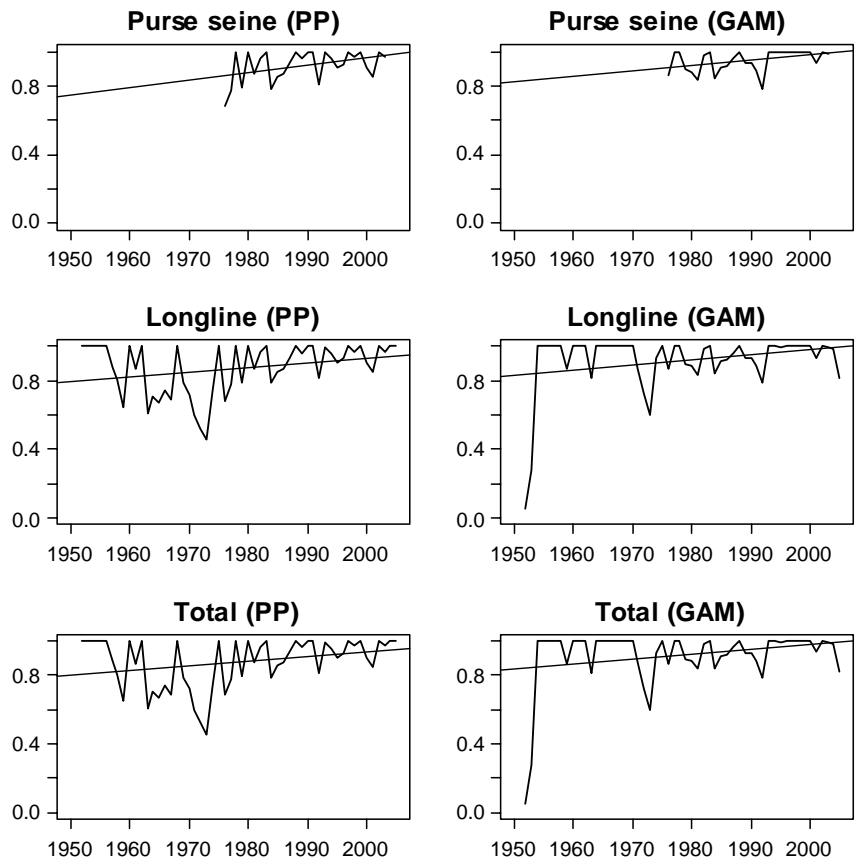
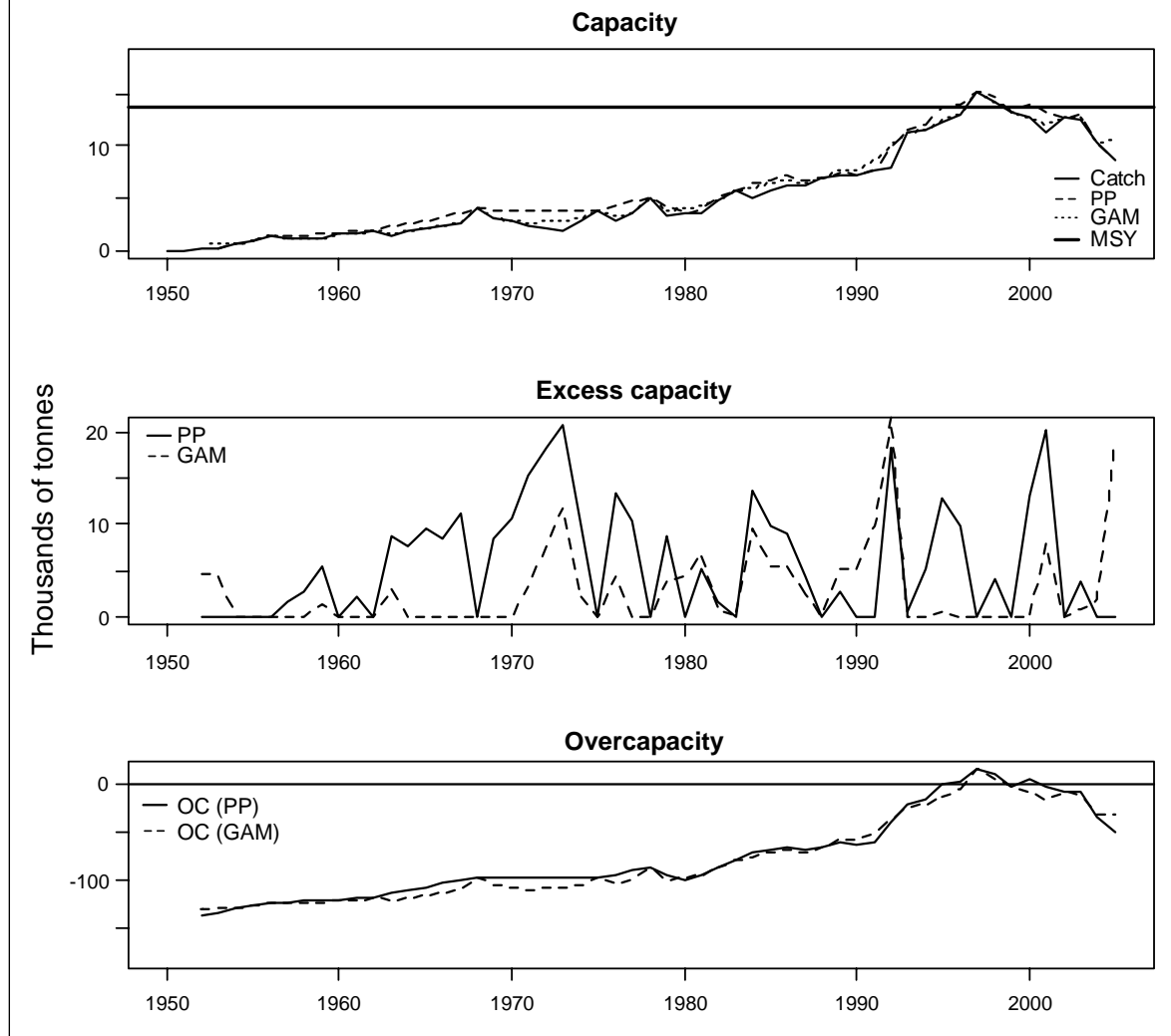


FIGURE 15
Indian Ocean bigeye tuna. Estimated trends of capacity output, excess capacity (EC) and overcapacity (OC),
with the PP and GAM methods



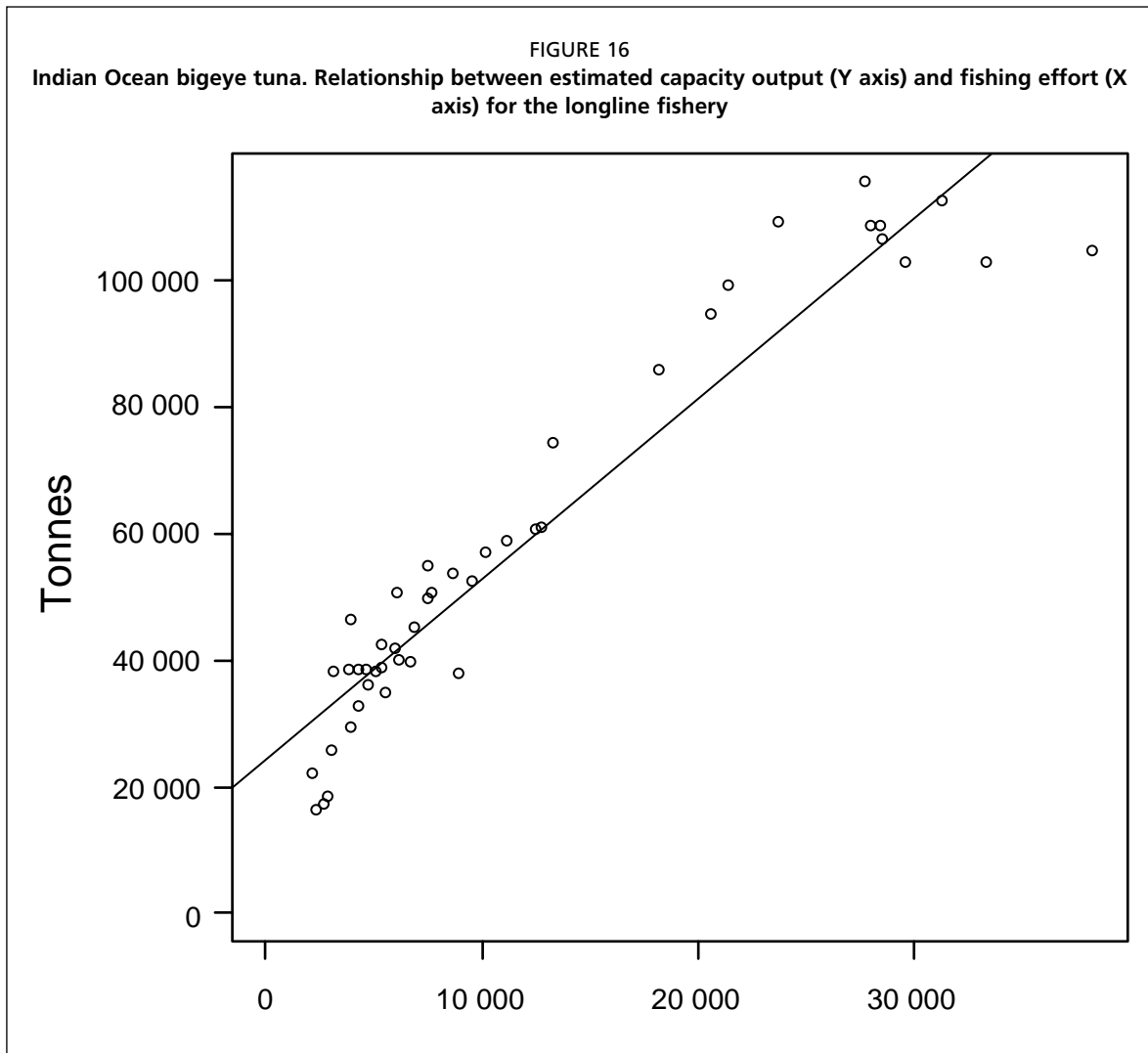
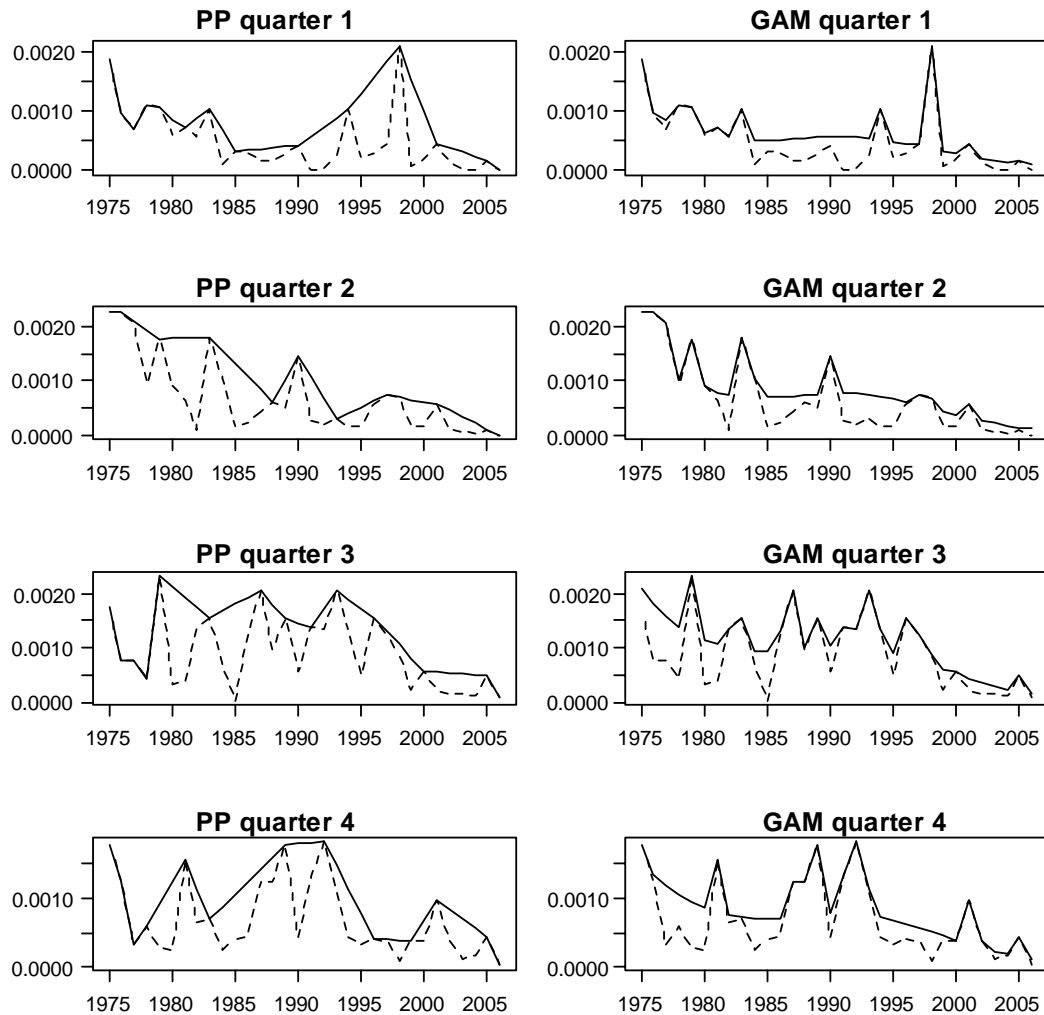


FIGURE 17
 Eastern Pacific yellowfin tuna. Example of application of PP and GAM methods to quarterly fishing mortality of Fishery 10 (pole and line in Regions 1-13)



The dark lines are the outputs from MULTIFAN-CL and the dashed line is the estimate of fishing capacity.

FIGURE 18
Eastern Pacific yellowfin tuna. Estimated trends in capacity utilization by gear type and for all gears combined

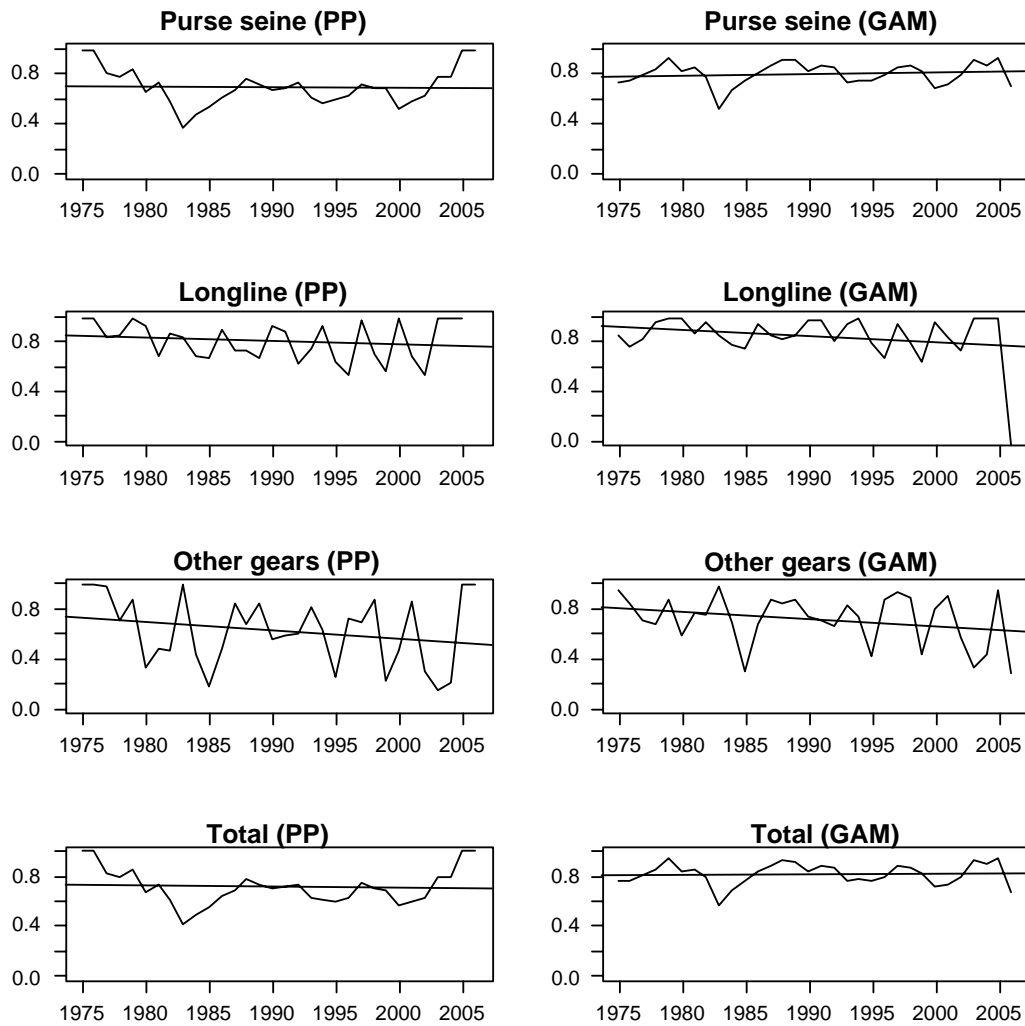


FIGURE 19
 Eastern Pacific yellowfin tuna. Estimated trends of capacity output, excess capacity (EC) and overcapacity (OC), with the PP and GAM methods. dOC: overcapacity estimated as the difference between capacity and "dynamic MSY" (dMSY)

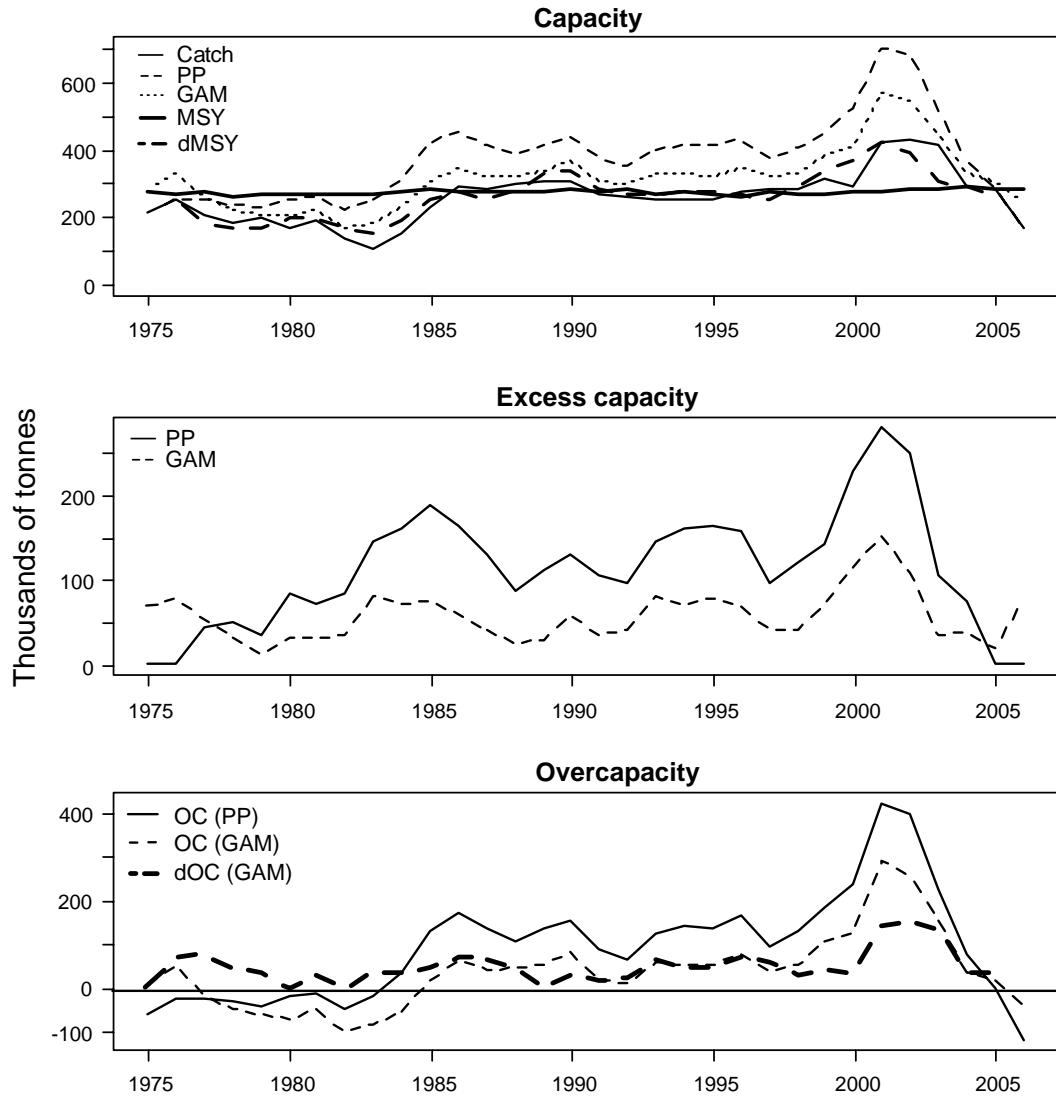


Figure adapted from Arrizabalaga et al. (2009).

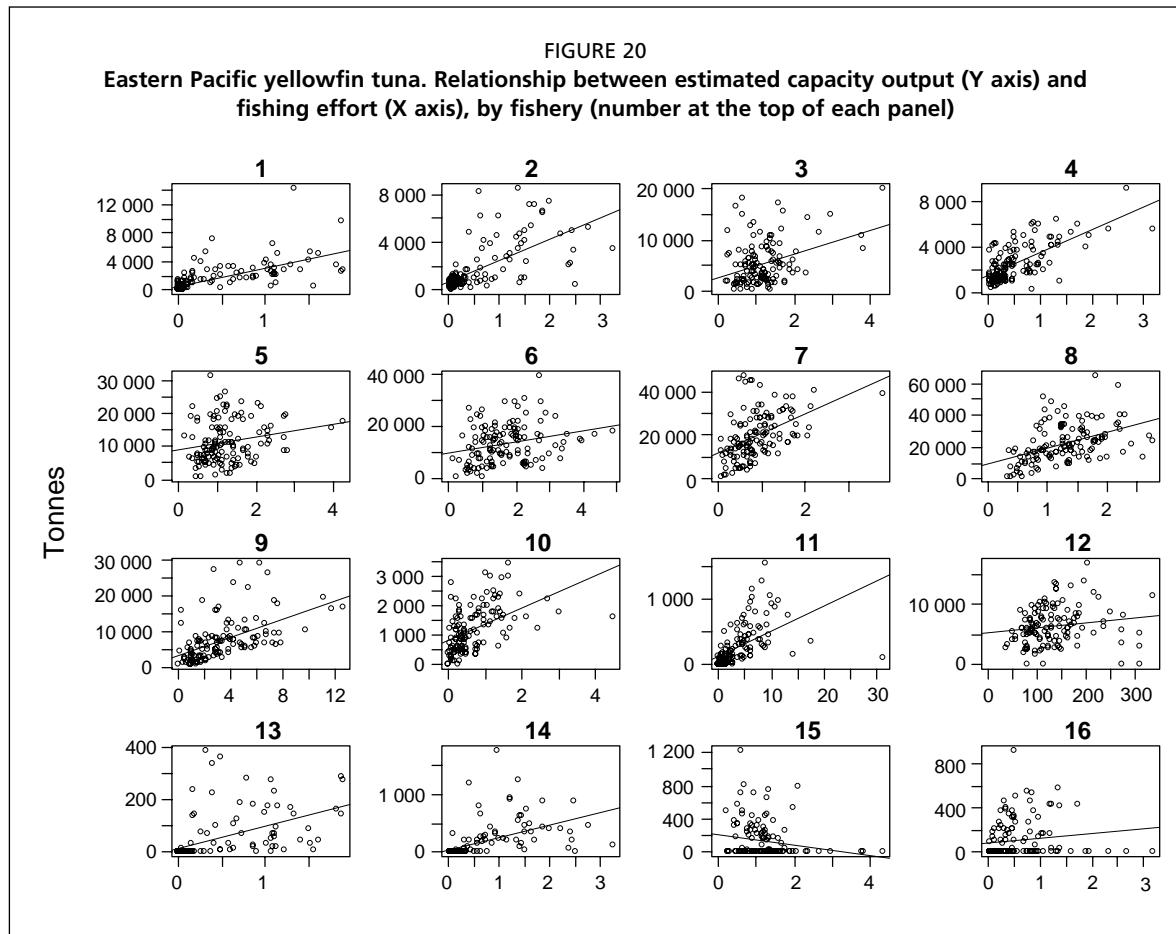
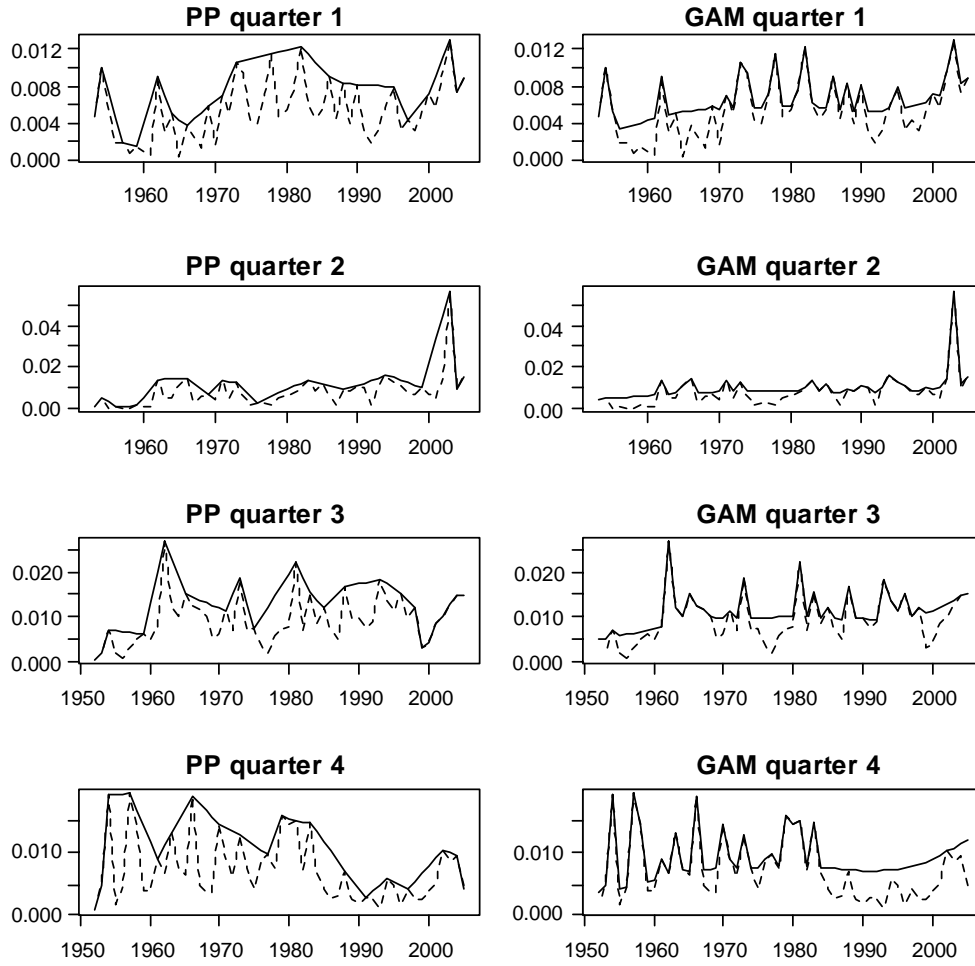
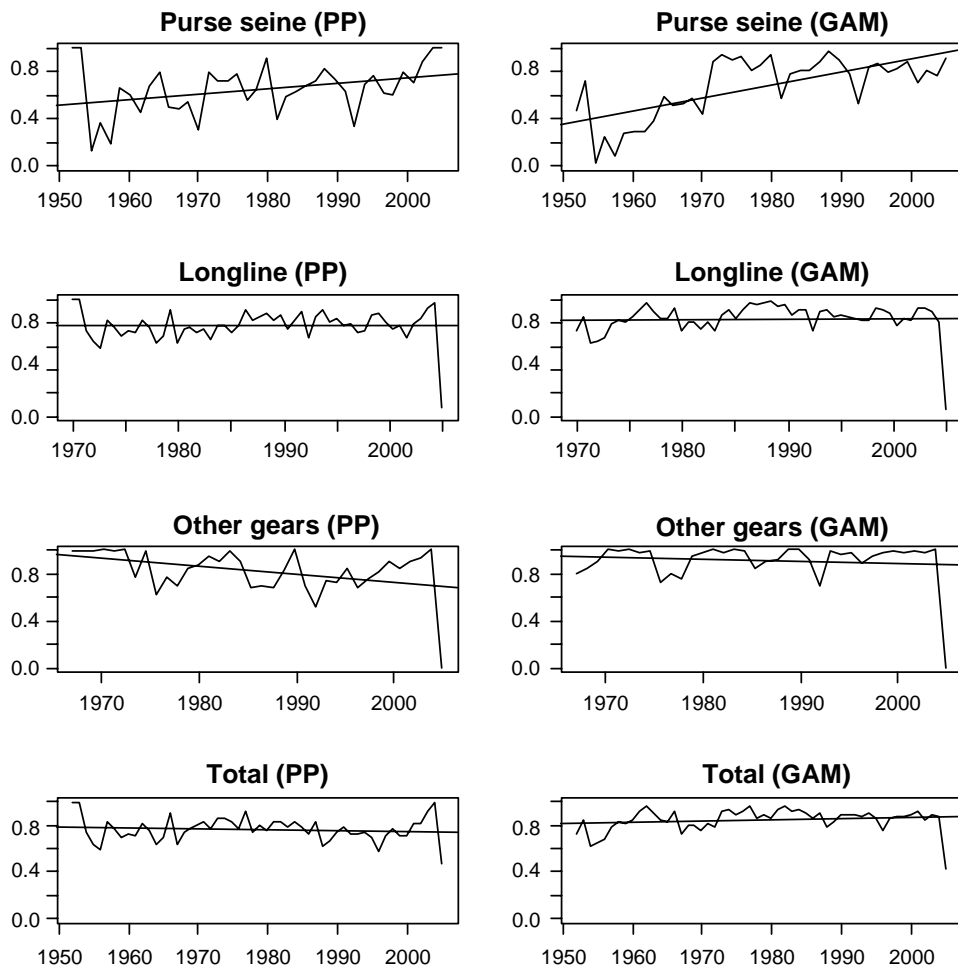


FIGURE 21
 Western and Central Pacific yellowfin tuna. Example of application of PP and GAM methods to quarterly fishing mortality of Fishery 10 (all longline except that of Australia in Region 5)



The dark lines are the outputs from MULTIFAN-CL and the dashed line is the estimate of fishing capacity.

FIGURE 22
Western and Central Pacific yellowfin tuna. Estimated trends in capacity utilization by gear type and for all gears combined



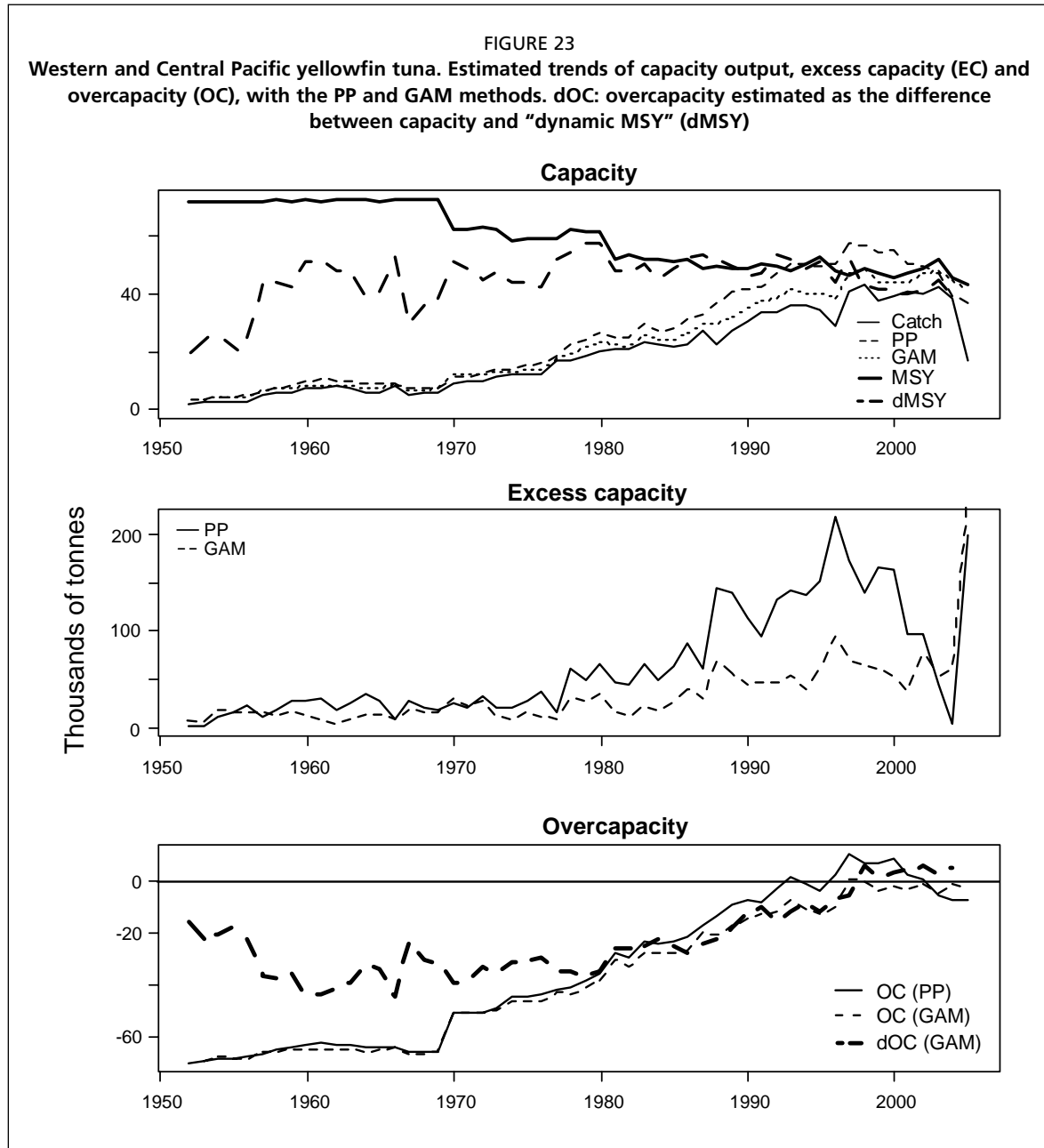


FIGURE 24
Western and Central Pacific yellowfin tuna. Relationship between estimated capacity output (Y axis) and fishing effort (X axis), by fishery (number at the top of each panel)

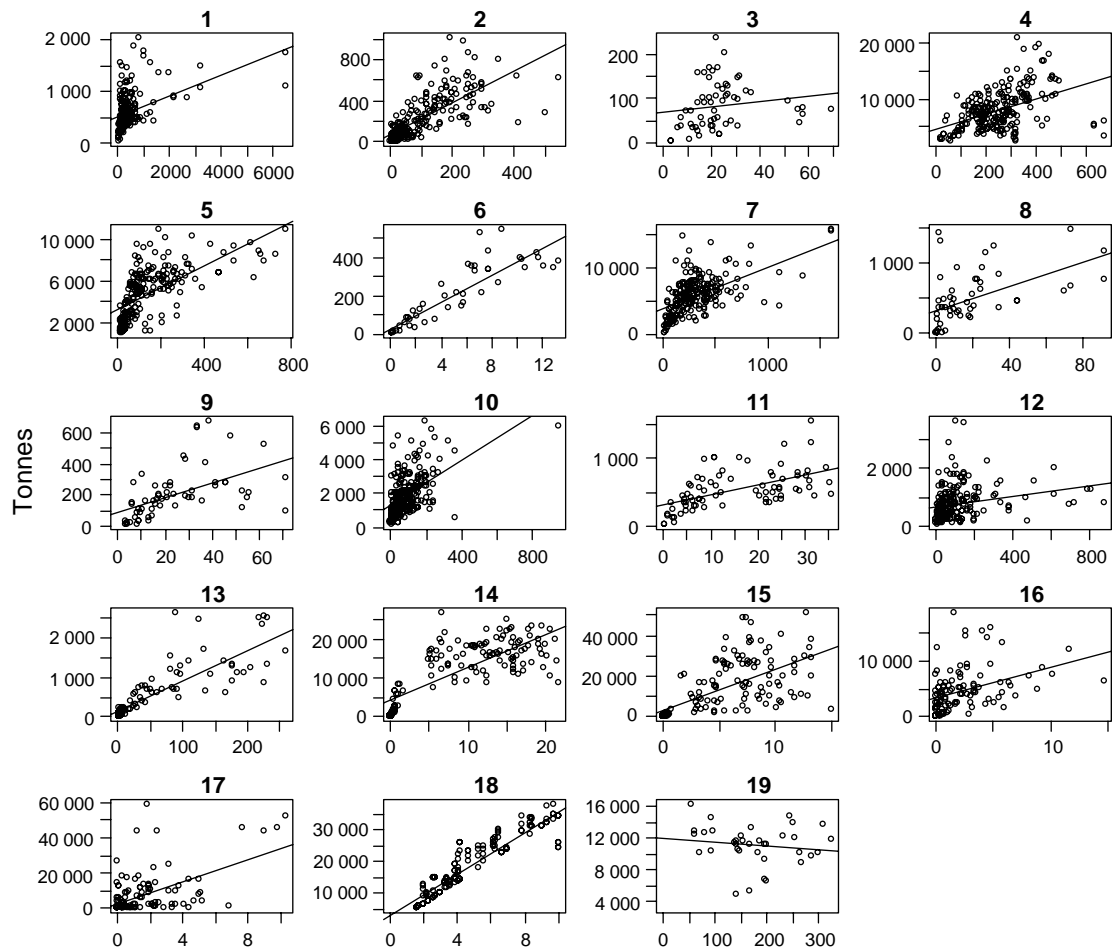
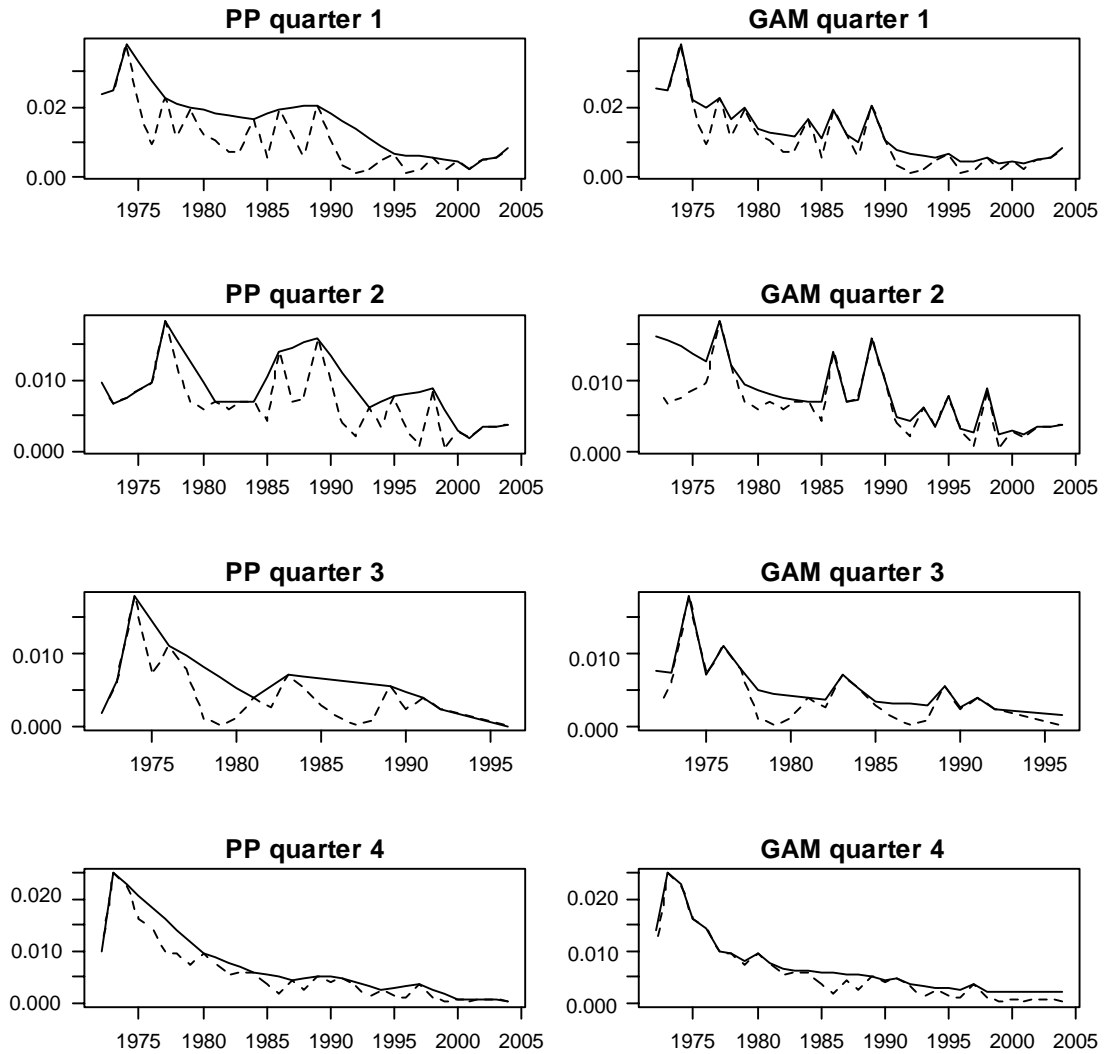


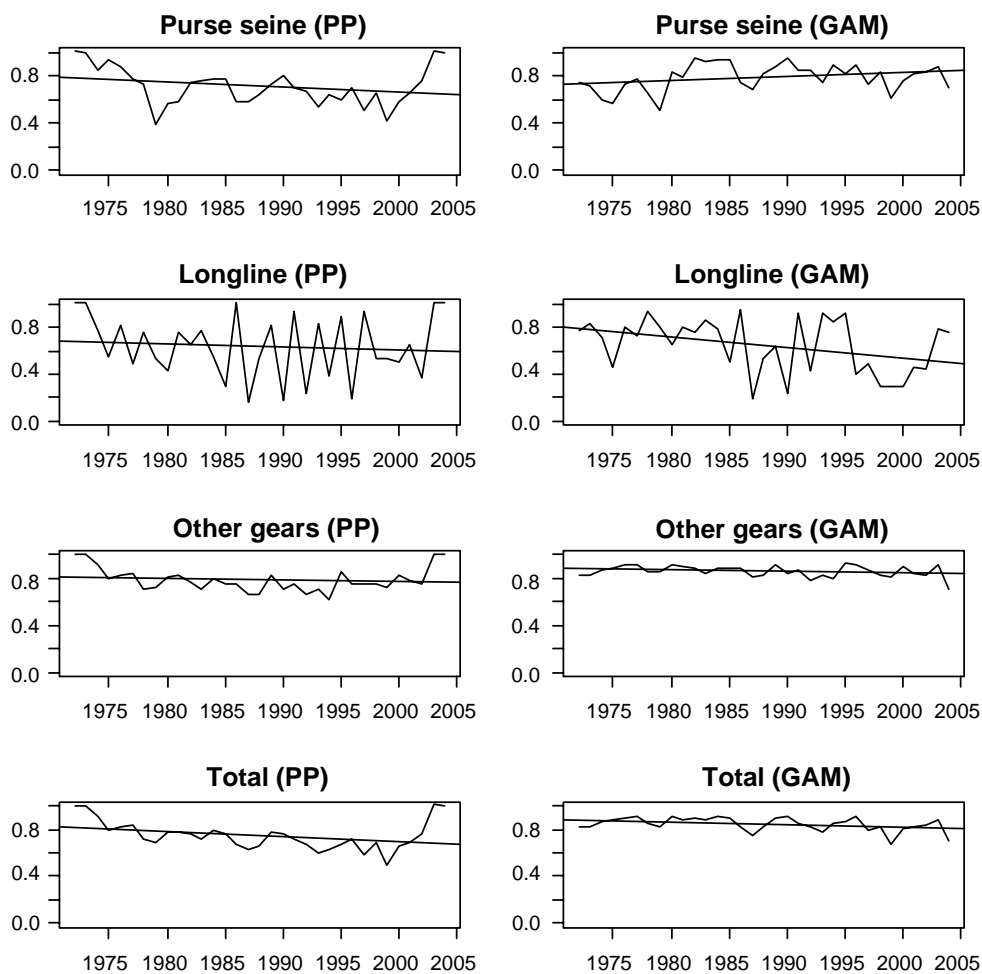
Figure adapted from Arrizabalaga *et al.* (2009).

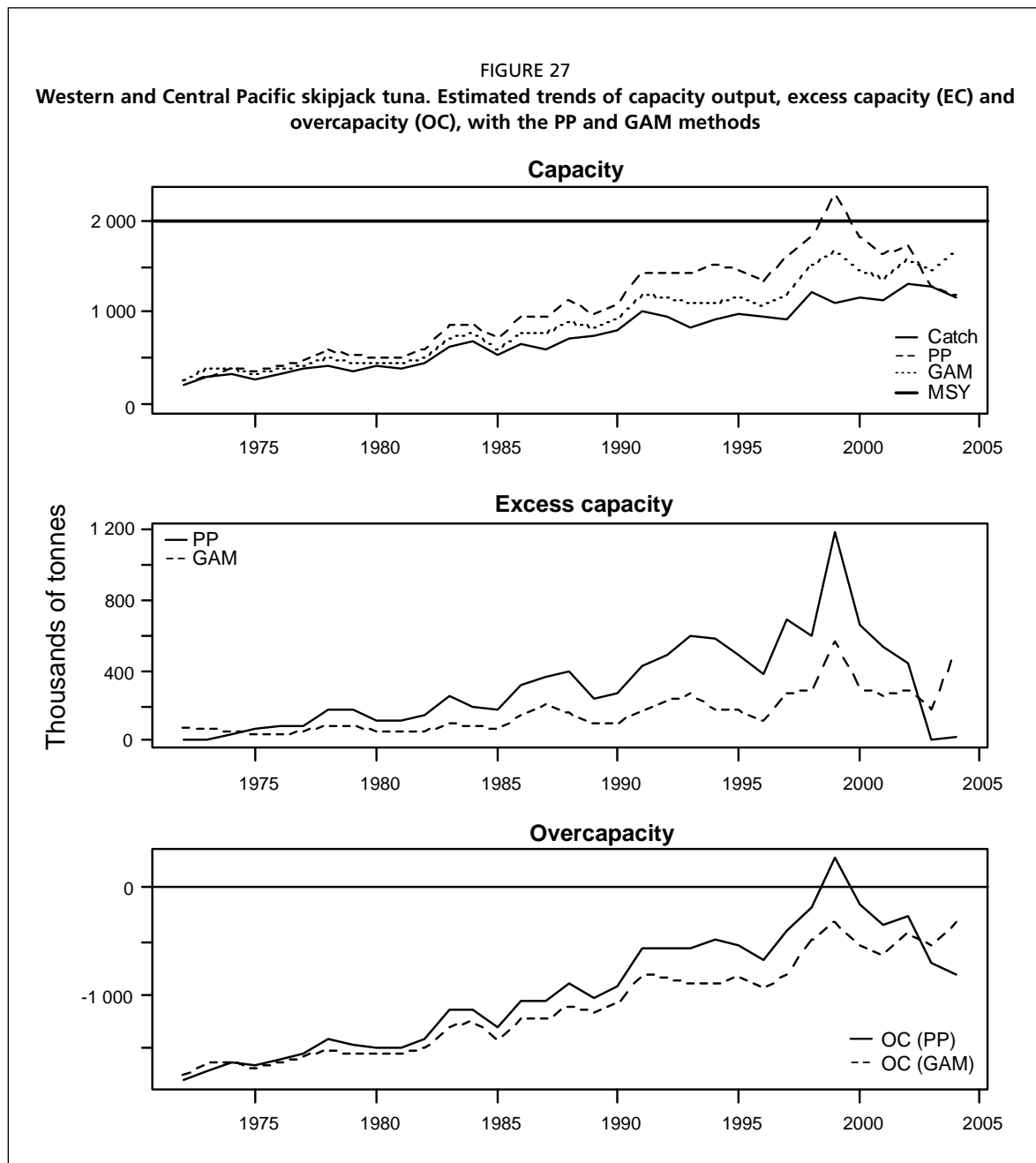
FIGURE 25
Western and Central Pacific skipjack tuna. Example of application of PP and GAM methods to quarterly fishing mortality of Fishery 10 (Japanese distant-water pole-and-line fishery in Region 5)

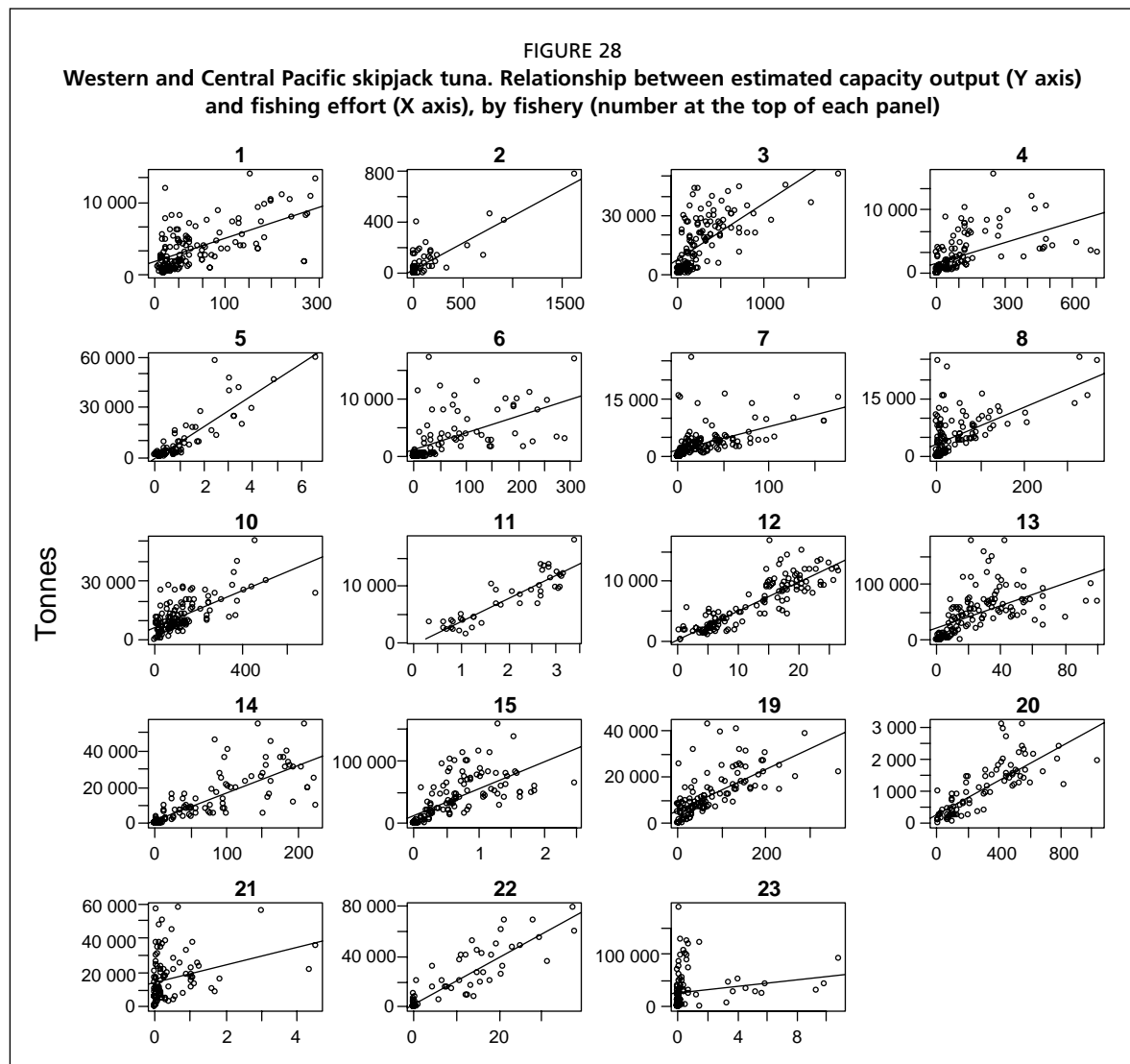


The dark lines are the outputs from MULTIFAN-CL and the dashed line is the estimate of fishing capacity.

FIGURE 26
Western and Central Pacific skipjack tuna. Estimated trends in capacity utilization by gear type and for all gears combined







Estimation of tuna fishing capacity from stock assessment-related information

Workshop to Further Develop, Test and Apply a Method for the Estimation of Tuna Fishing Capacity from Stock Assessment-Related Information

14–16 May 2007

La Jolla, California, United States of America

These Proceedings include (i) the Report of and (ii) the paper presented at the Workshop to Further Develop, Test and Apply a Method for the Estimation of Tuna Fishing Capacity from Stock Assessment-Related Information. The Workshop was hosted by the Inter-American Tropical Tuna Commission (IATTC) in La Jolla, California, United States of America, from 14 to 16 May 2007. It was organized by the Japan-funded Project on the “Management of Tuna Fishing Capacity: Conservation and Socio-Economics” of the Food and Agriculture Organization of the United Nations (FAO) in collaboration with and with in-kind support of several international and national fisheries institutions involved in tuna fisheries research and management. The Report outlines the discussions carried out at the Workshop, some proposals for further work, recommendations and conclusions of the Workshop.

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