

Attachment 4. Future Work Plan of the ISC4 Swordfish Working Group

Objective	Research Project	Collaborators
1. Conduct biological and oceanographic research in support of improved stock assessment	AGE AND GROWTH: a) Continue to evaluate regional differences in age and growth b) Expand collection of data on size- and sex-composition of catch	Humphreys, Sun Skillman, Sun, Yokawa
	MOVEMENT: a) Estimate patterns of movement and growth rates using conventional tags b) Determine patterns of movement and behavior using archival and PSAT tags	Holt, Yokawa, NTU Musyl, Yokawa, Saito, NTU
	STOCK STRUCTURE: a) Set priorities for reanalysis of genetics samples and collect samples of young swordfish from specific areas b) Assess the use of otolith elemental composition to uniquely identify geographically separate nursery areas in juvenile swordfish	Hinton, Yokawa, Sun, Humphreys, Chow Humphreys, Yokawa

Attachment 4. Future Work Plan of the ISC4 Swordfish Working Group (continued).

Objective	Research Project	Collaborators
2. Develop and apply stock assessment models	a) Develop and apply integrated, spatially-explicit models of stock and fishery dynamics incorporating effects of environment, gear, fishing practices, fleet dynamics, and other factors. b) Develop sex-specific age-structured model	Kleiber, Bigelow, Yokawa, Hinton
3. Develop, test, and apply basin-scale swordfish simulation model	Use simulator to help develop and evaluate stock assessment models	Sun, Yokawa, Conser, Kleiber
4. Develop comprehensive swordfish fishery database	a) Construct abundance indices for major fisheries in the North Pacific b) Incorporate swordfish statistics for all fisheries catching swordfish in the North Pacific but not yet included in the database.	Kleiber, Bigelow, Yokawa, Hinton Hinton, Kleiber, Yokawa, Sun ISC Database Administrator