

Preliminary results from IATTC collaborative research activities on dorado in the EPO and future research plan (Document SAC-05-11b)

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Comisión Interamericana del Atún tropical
Inter-American Tropical Tuna Commission (IATTC)

5th Meeting of the IATTC Scientific Advisory Meeting
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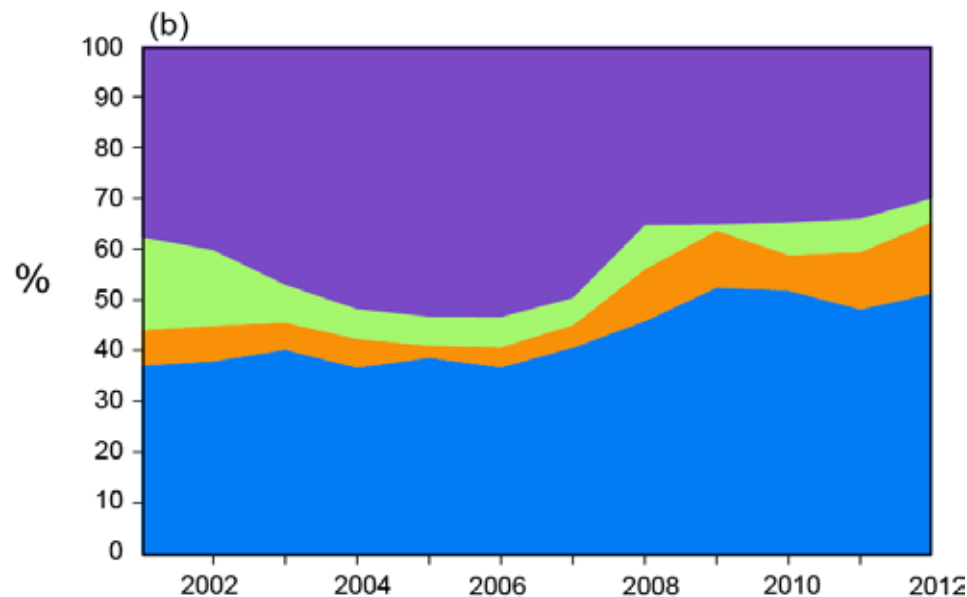
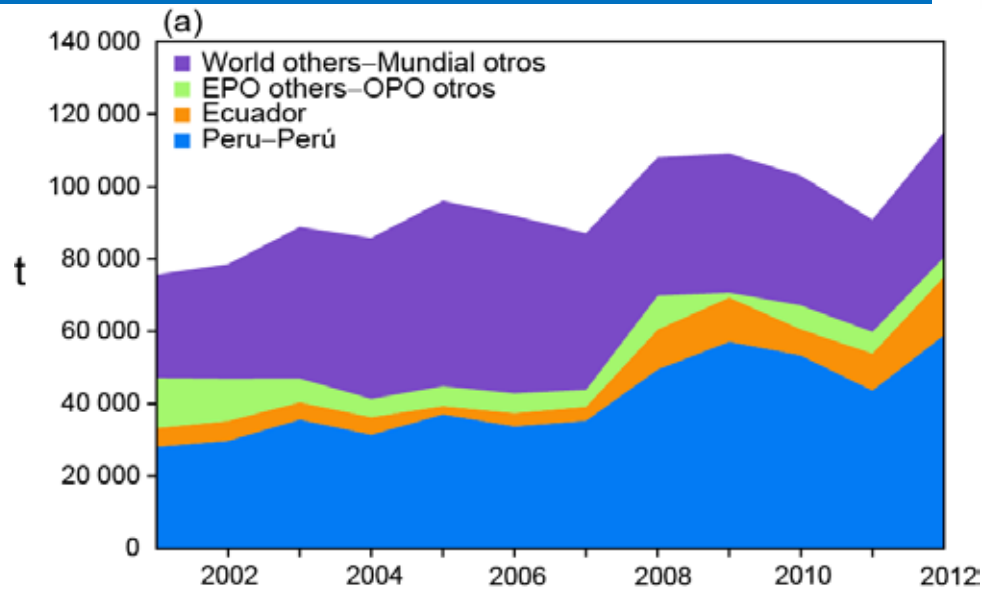
Outline



- Fishery statistics
 - § Catch and trade statistics
 - § Development of sampling programs
 - § Seasonal trends (Ecuador and Costa Rica)
 - § Identification of fishery units
- Stock status indicators
 - § Indices based on catch-rate data: observer data and Ecuadorian artisanal fisheries
 - § Indices based on composition data: observer data (size-classes) and Ecuadorian artisanal fisheries (length-composition)
- Research plan for low information stocks and bycatch species



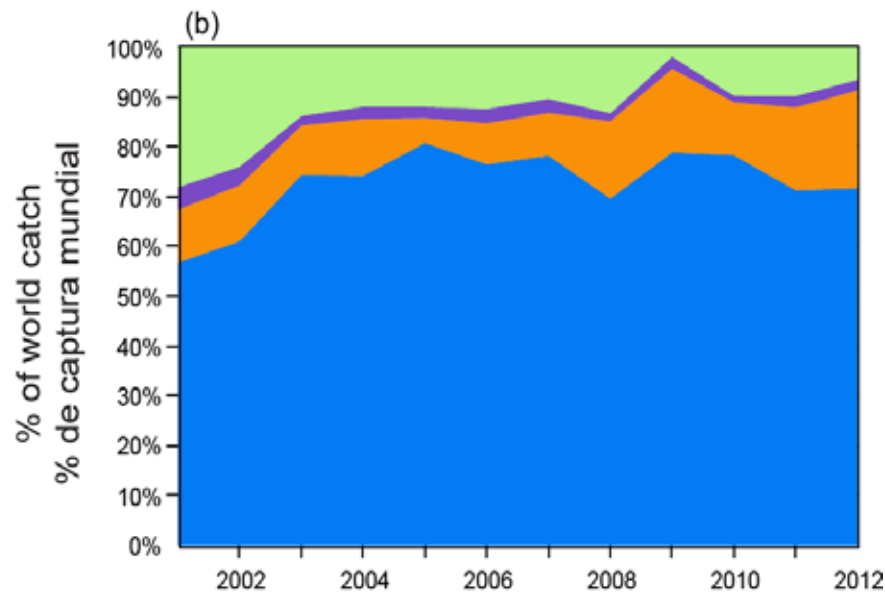
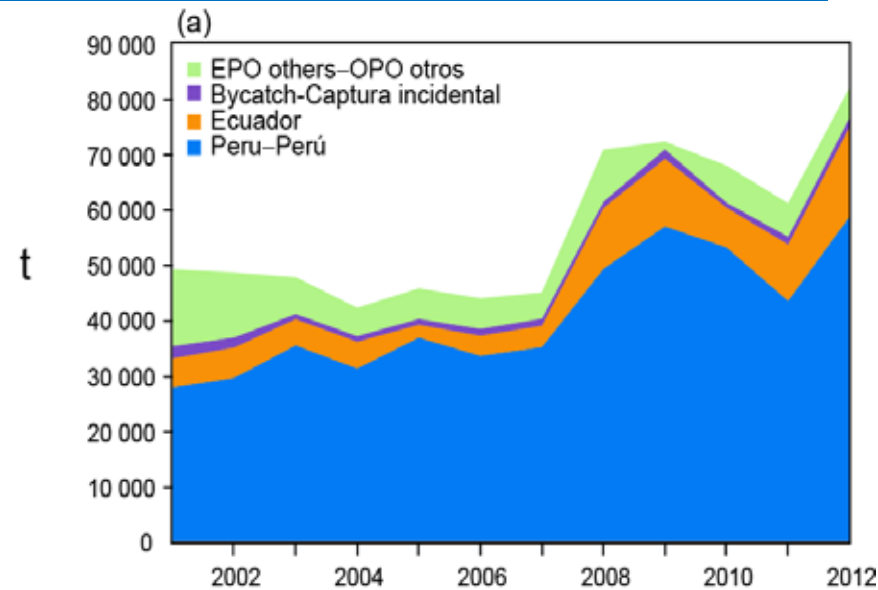
Dorado landings - world's perspective



Sources: FAO FishStat
SRP-Ecuador, Peruvian
anuarios estadísticos



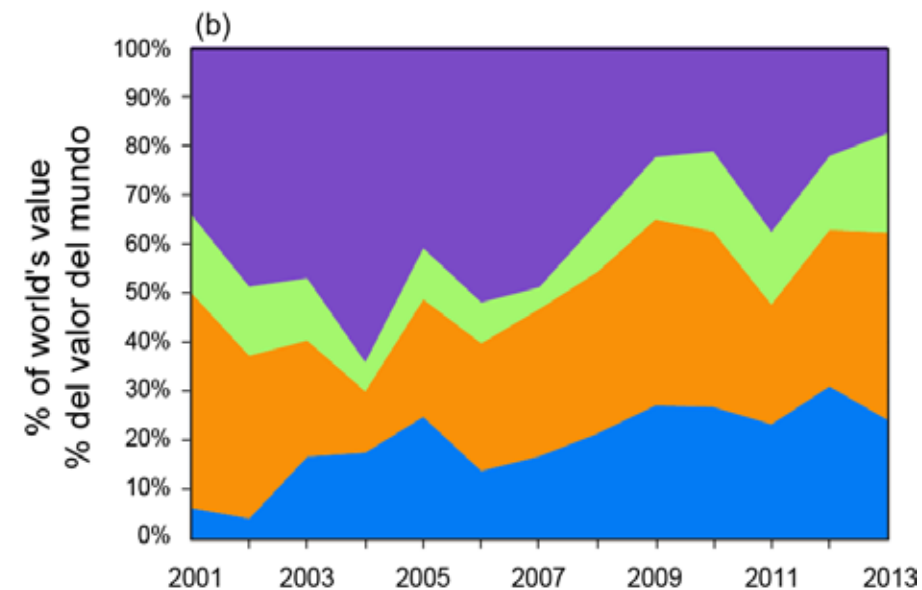
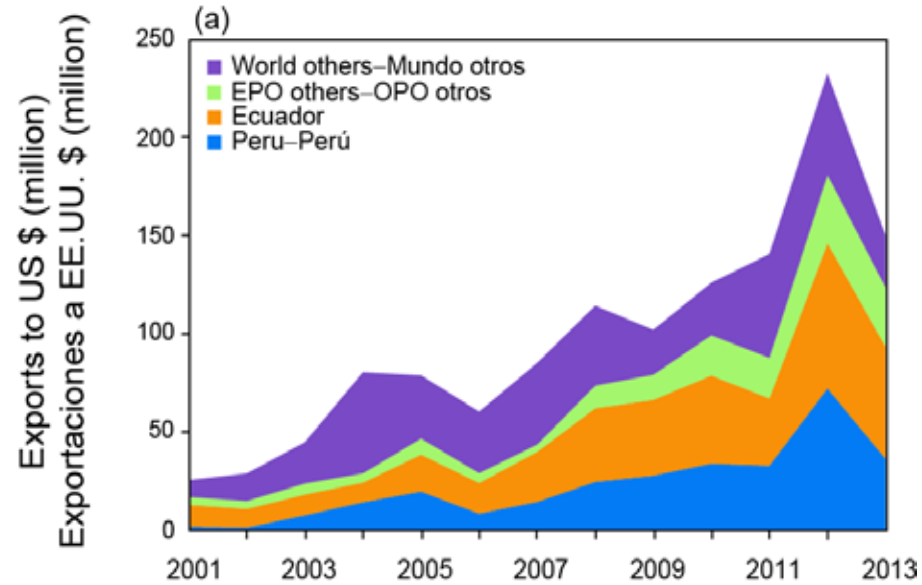
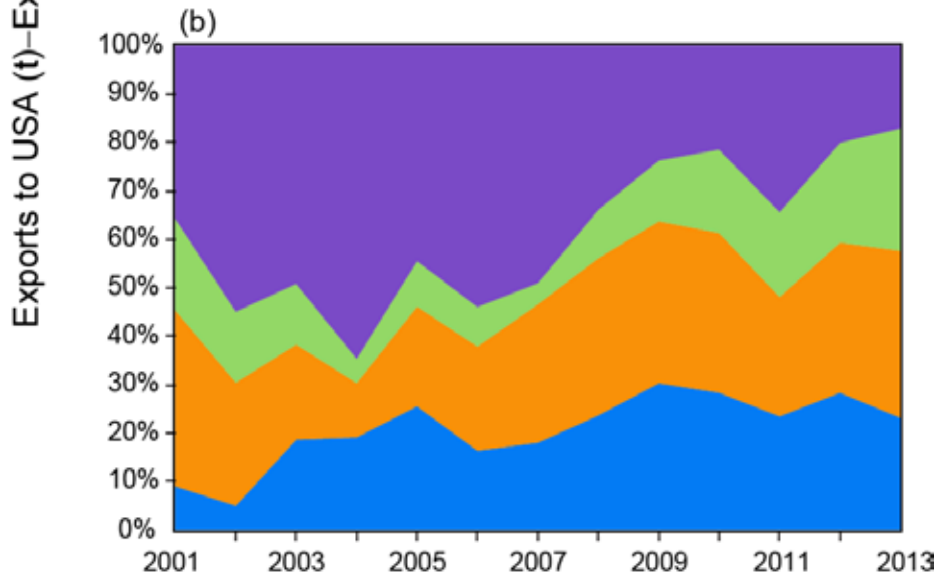
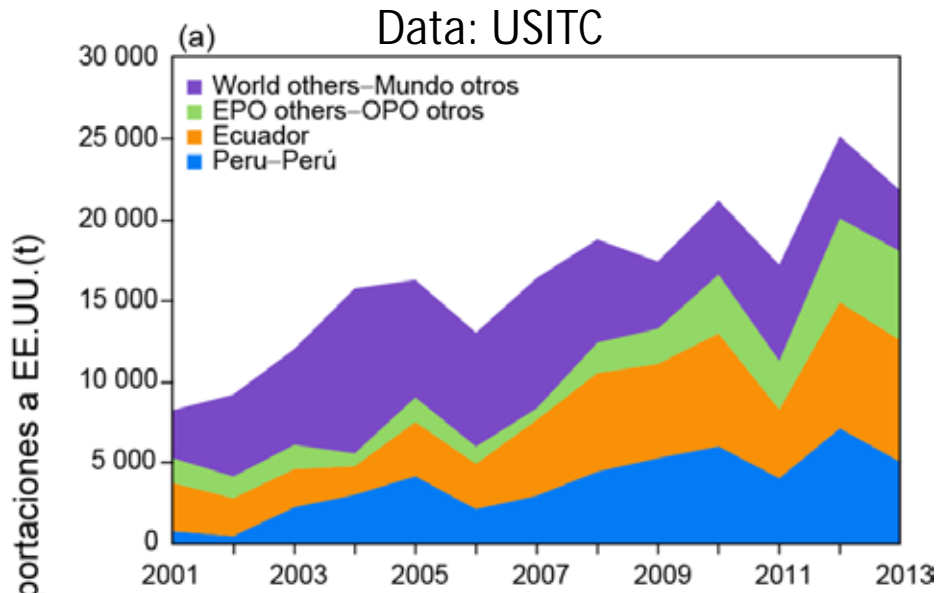
Dorado landings in EPO



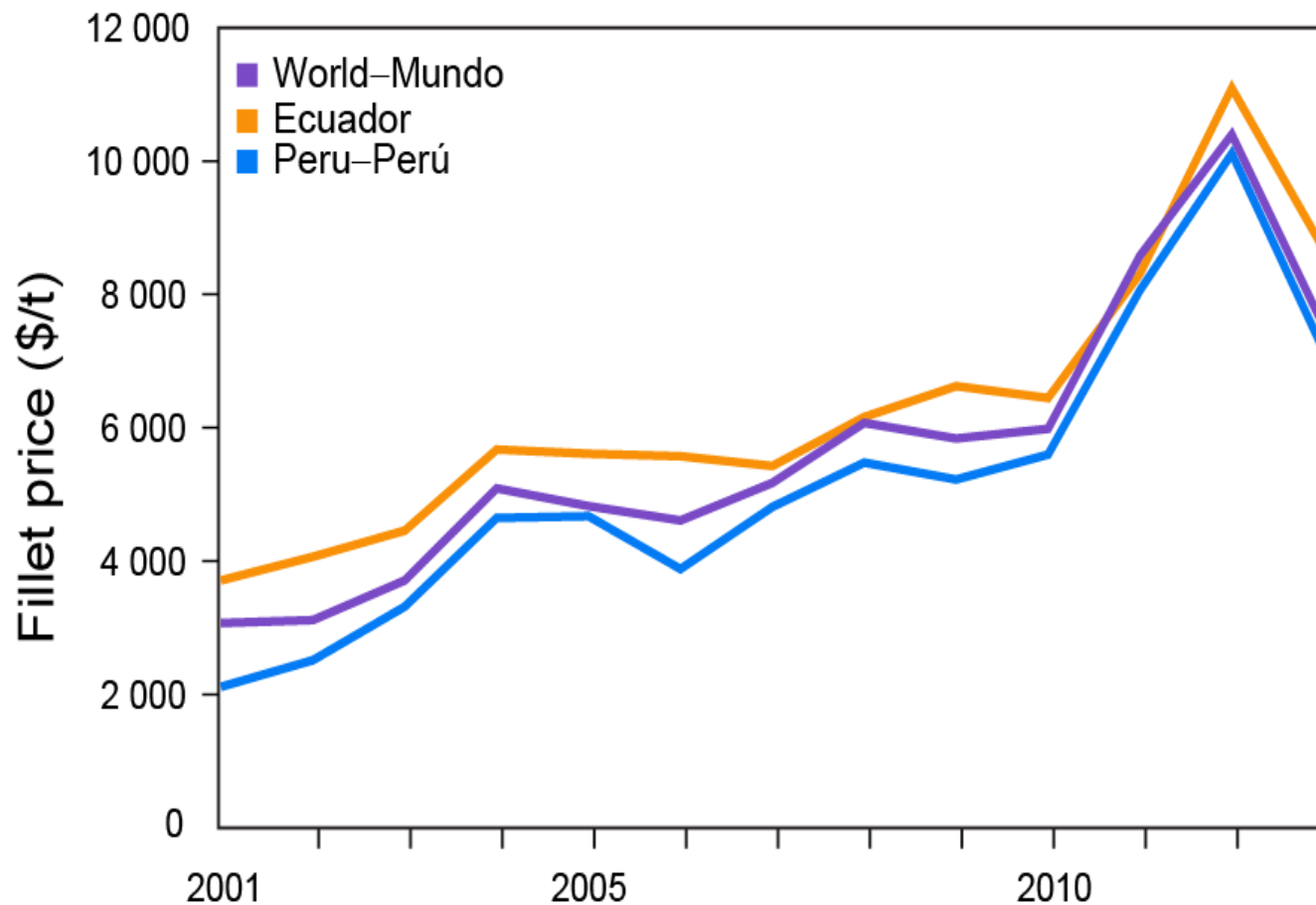
Sources: FAO FishStat
SRP-Ecuador, Peruvian
anuarios estadísticos , IATTC



Dorado imports to US



Dorado imports to US



Data: USITC



Development of sampling programs



- Assistance in development of data collection forms (Central America)
- Assistance in development of databases resources (Central America and Ecuador)



Database work



BASE DE DATOS FORMULARIO DE MUESTREOS BIOLÓGICO PESQUERO EN DESEMBARQUES

OSPECSA Herramientas de presentación de formulario

Inicio Cerrar Datos externos Herramientas de base de datos Formato Organizar

Tahona Ver Fuente Puntero Condicionales Formato Líneas de división Líneas de división Logotipo Títulos Números de página Fecha y hora Agregar campos existentes Autoformato

Form. Muestreos Hoja: Biológico Desembarque

Sede Sede Sede Emb Prin. Arte Calidad Desembarque

Fecha

Embarcación	Fecha	Muestreador	País	Matricula	Eslora	Lugar Des.	Salida	Llegada

Lugar de Pesca	Dist Rec.	Cuadrante	Pesc.	Motor HP	Combust	U	Tot Cap	U	Tot Tib	U

Palangre Aoallera Línea mano Arrastre Descarga Biológico

Lance	Largo	Anzuelos	Longitud	U	Band	Anz	Prof	Carnada	Pcr	R. Acero	Pesca
		Cantidad	Oring							Si No	
		Tipo J-C	R Sup		Unidades						
		Tamaño	R Med		1=cm	5=kg					
		Cat #	R Inf		2=m	6=lb					
		Anillo: Sí No	EnAnz		3=brz	7=gal					
					4=milla naut	8=l					

Observ: Anillo: Sí No EnAnz

Flot Boya Días

Ubicación arte Super Media Fondo

Horario Día Noche

Pesos Si No

Observaciones

Latitud: Longitud:

Registro: 1 de 1 Sin filtro Buscar

Vista Presentación Blog Num

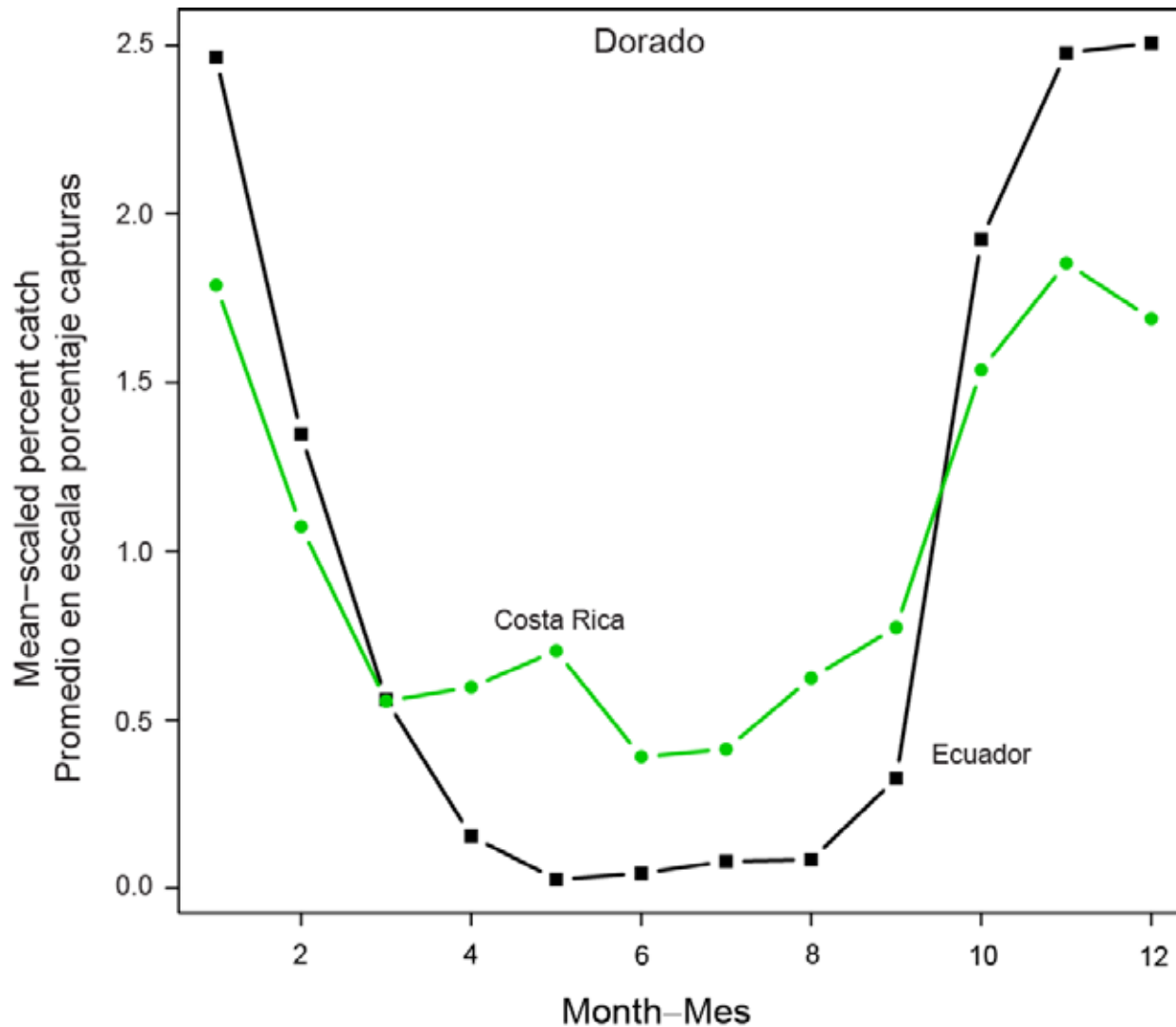
Development of sampling programs



- Assistance with sampling design for data collection (Ecuador)



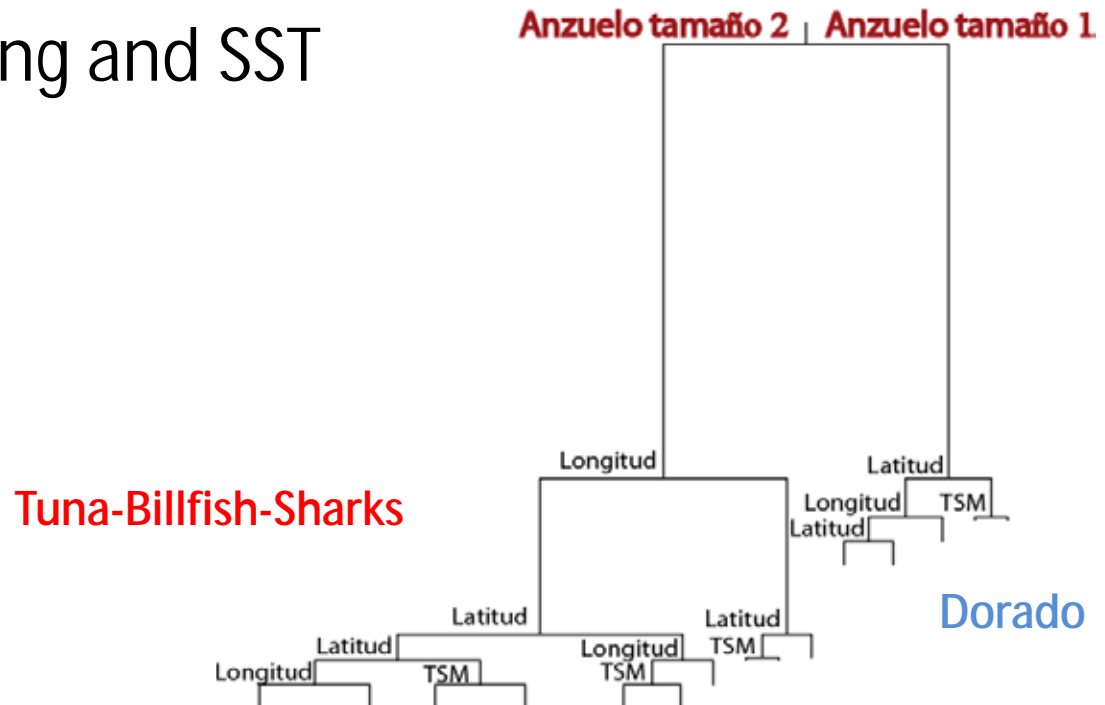
Seasonal trends



Identification of fishery units



- Analysis of catch composition suggests two “nodriza” fisheries:
 - § Hook type 1 with dorado as a dominant proportion of the catch
 - § Hook type 2 with a more varied species composition
- Catch composition for both fisheries changes with location of fishing and SST



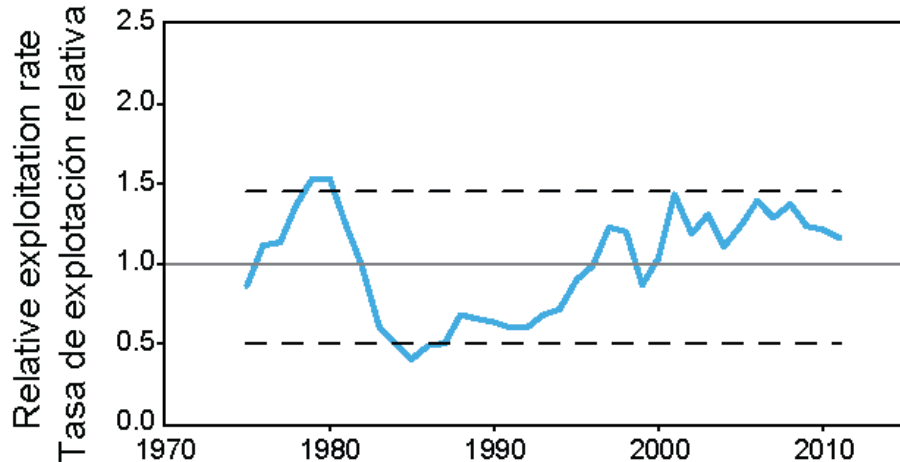
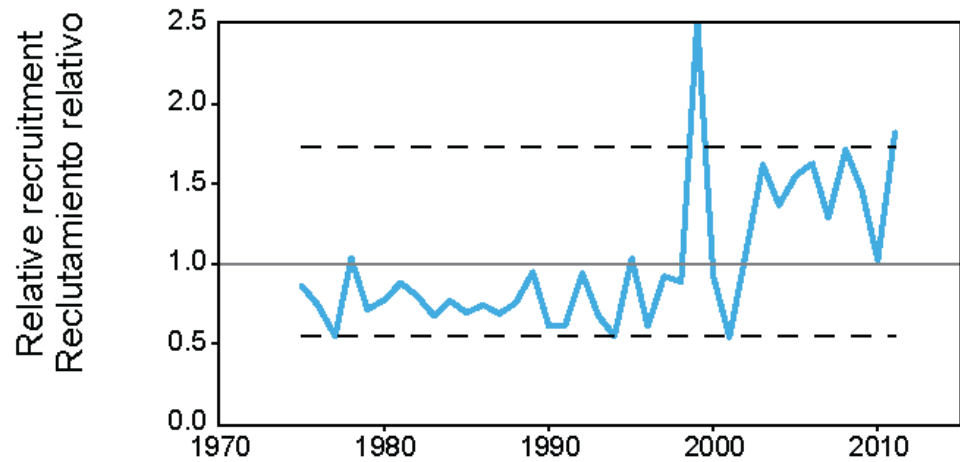
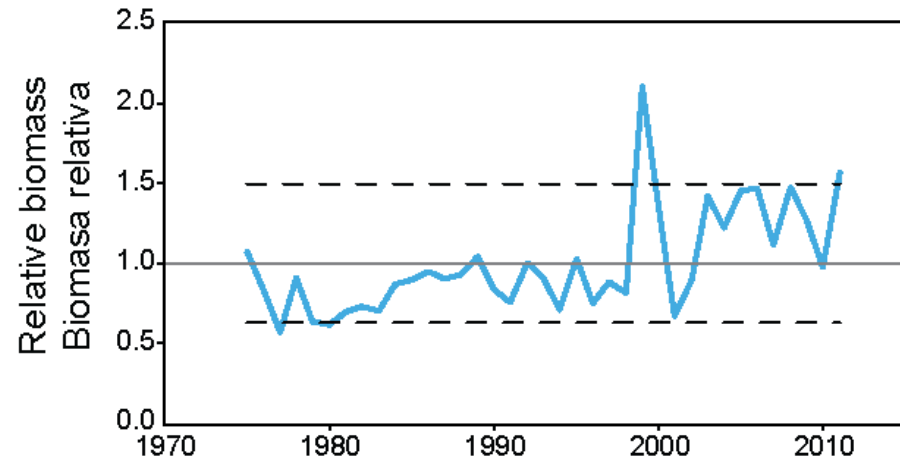
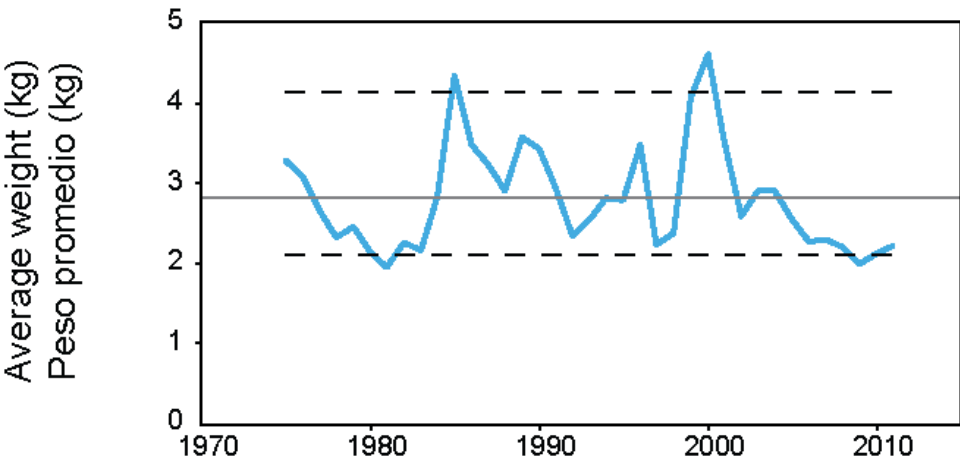
Stock status indicators



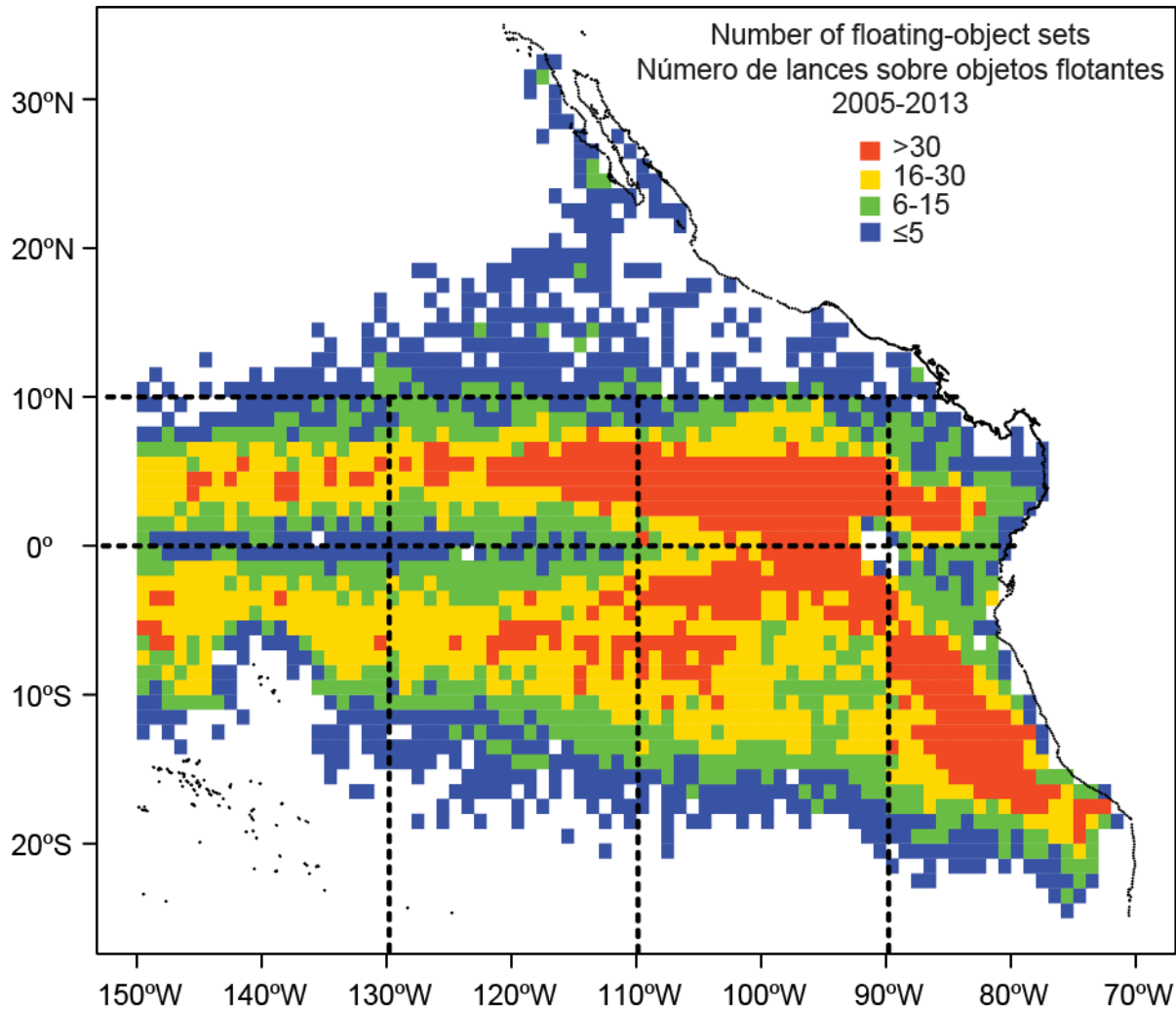
- Based on data (catch, effort, CPUE and mean weight)
- Based on simple population dynamics models (biomass, recruitment or exploitation rate)
- Reference levels
 - § Selected by managers
 - § Examples: 5th and 95th percentiles, ATHL for northern albacore (ISC)



Indicators – skipjack example



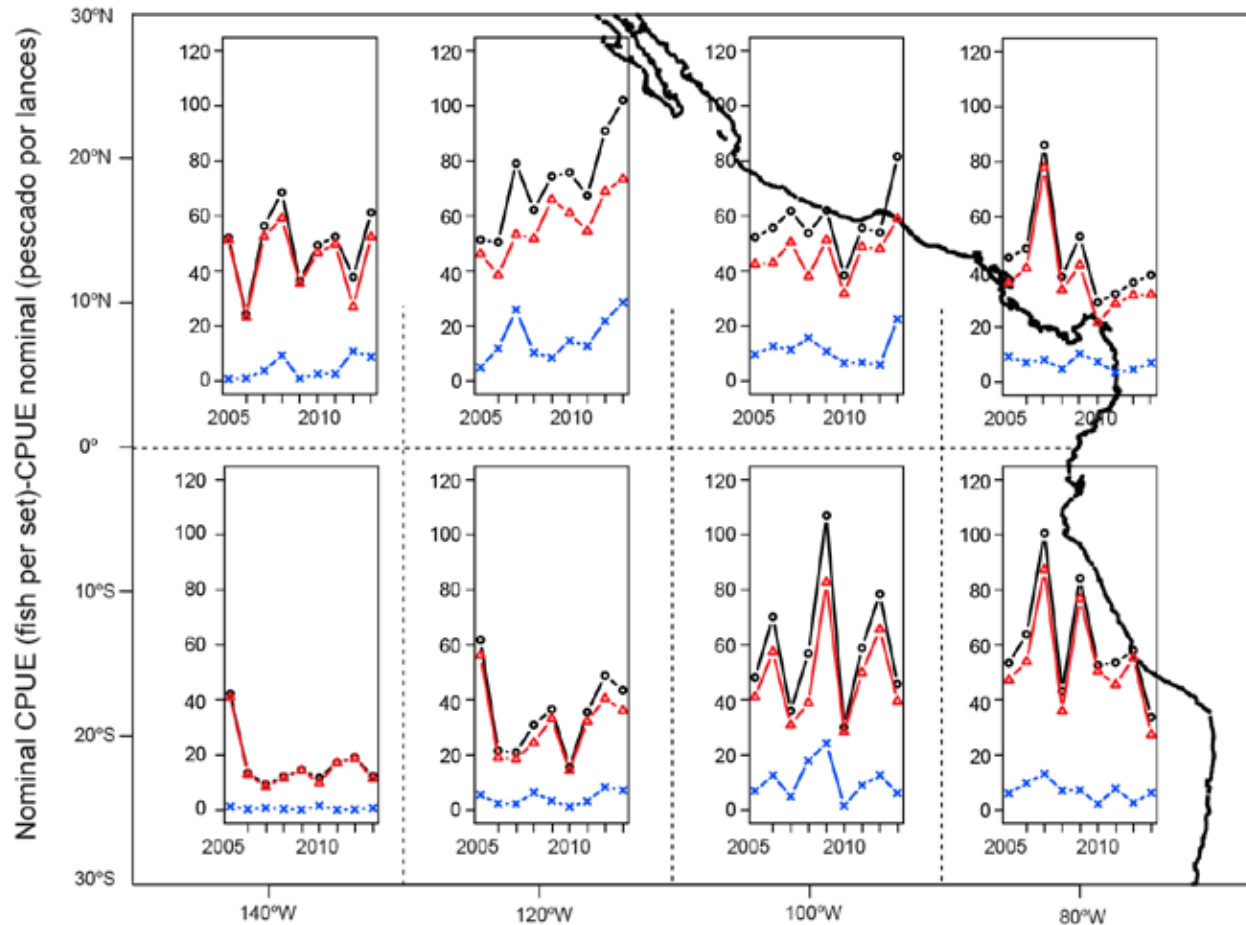
OBJ purse seine sets



Dorado purse seine CPUE



Floating-object sets (OBJ)



Black: all dorado

Red: large dorado (>60 cm)

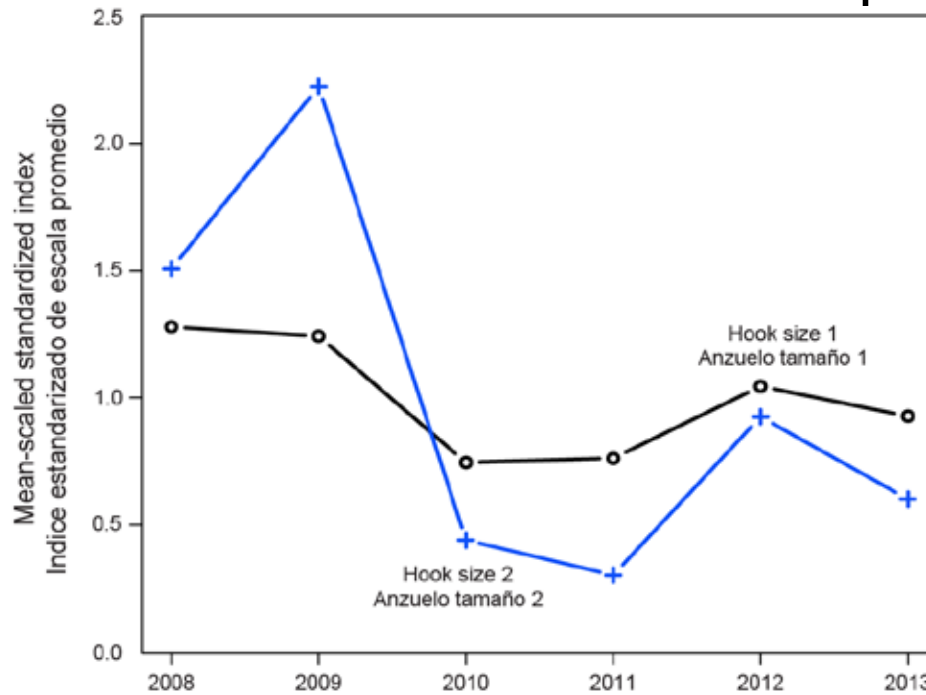
Blue: young-of-the-year (≤ 60 cm)



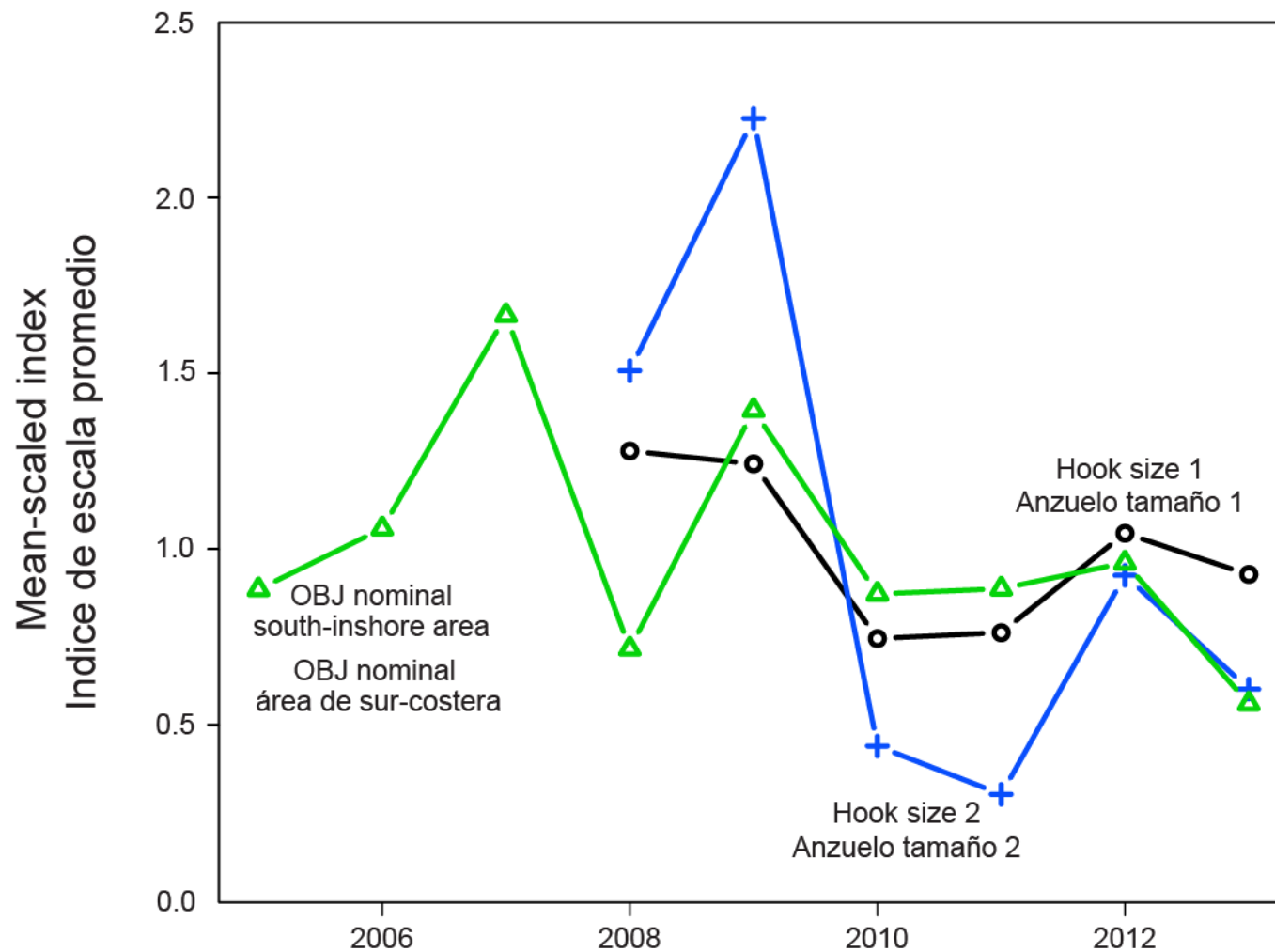
Ecuador artisanal fisheries



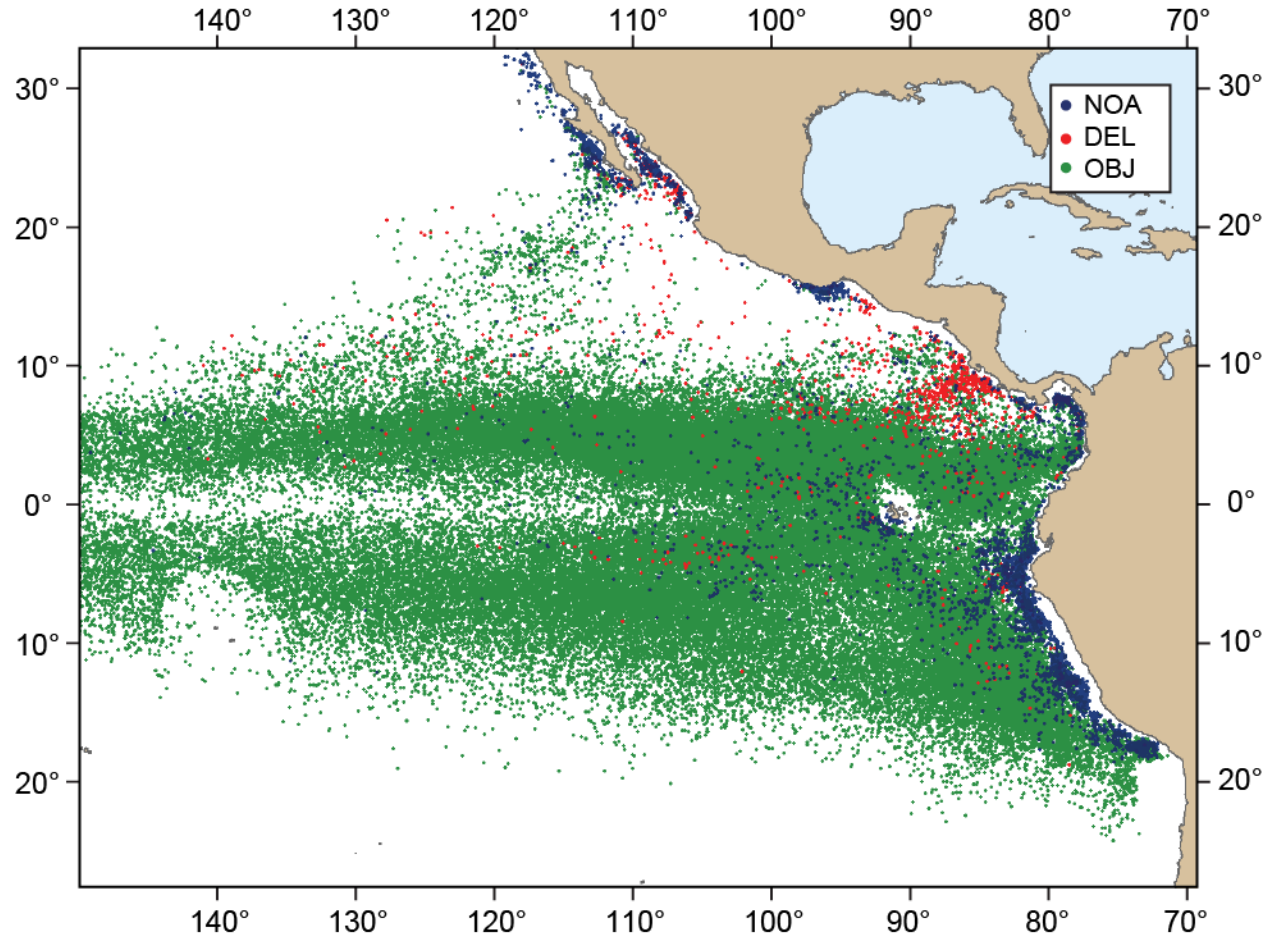
- By-trip catch and effort data used to compute relative indices for the “nodriza” fisheries catch species
- GAM standardized CPUE for dorado from the two “nodriza” fisheries show similar trends over last 6 years
- Precision measures are under development



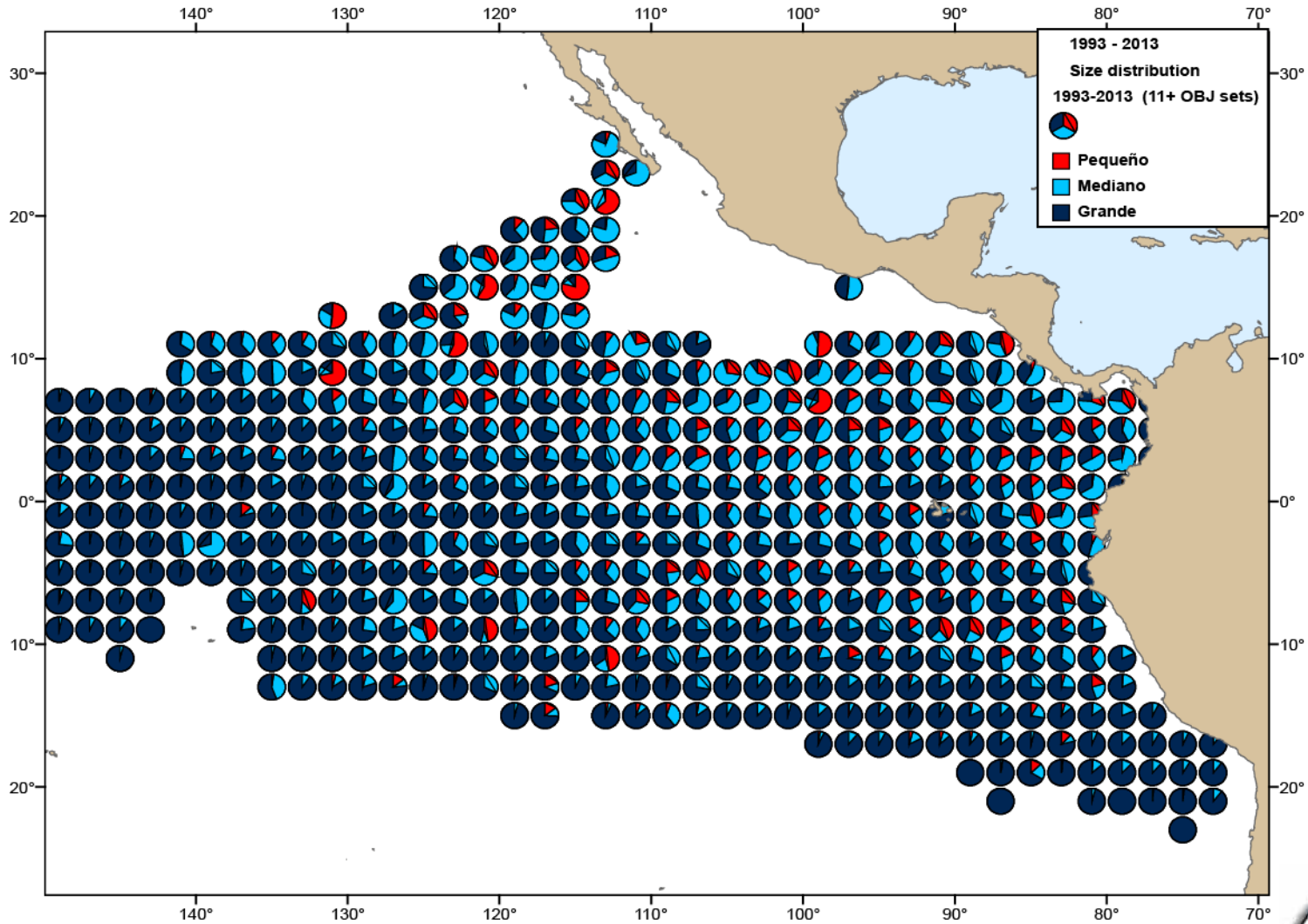
CPUE indicator comparisons



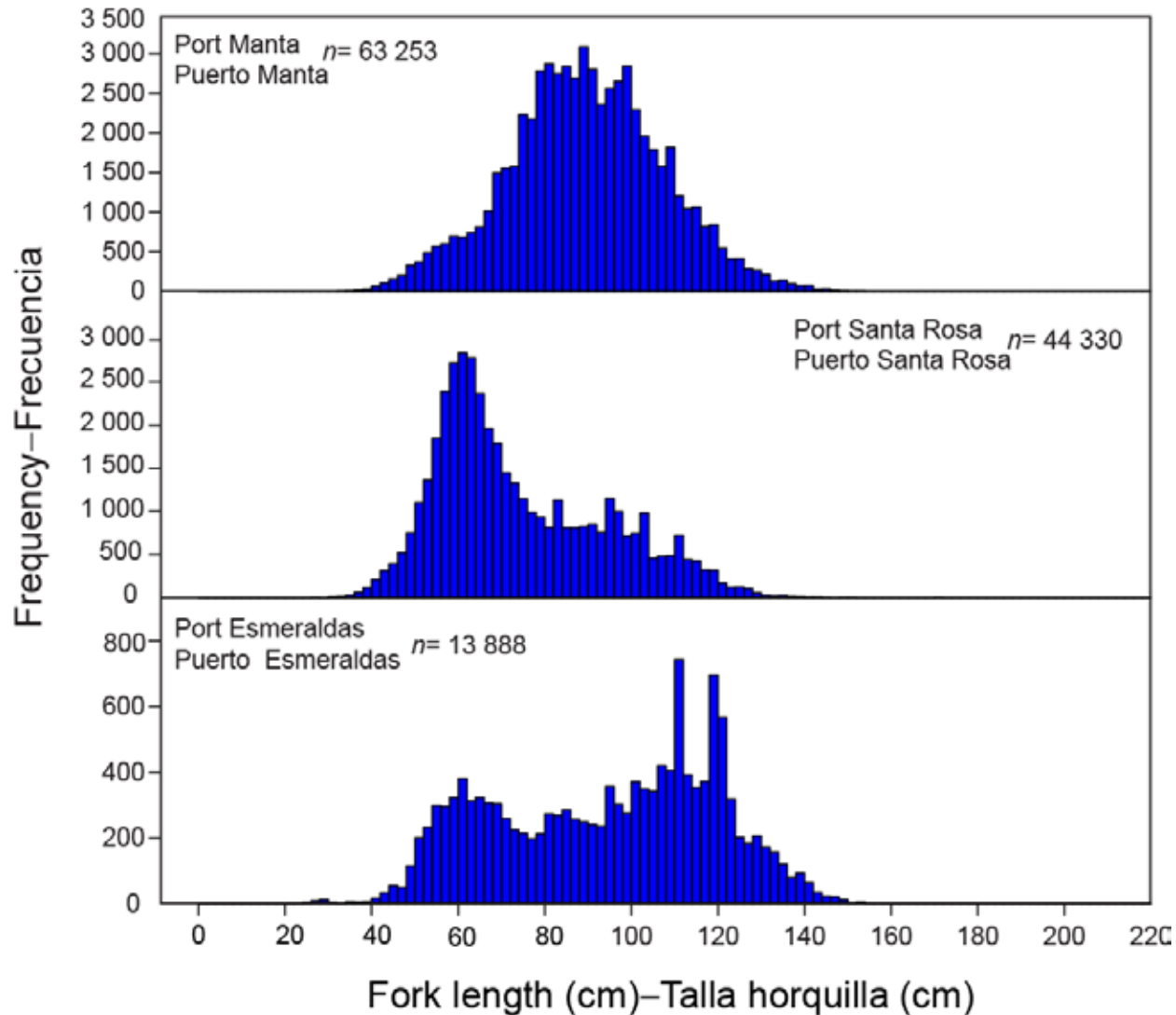
Development of indicators



Purse seine OBJ size-class data



Length-composition data - Ecuador

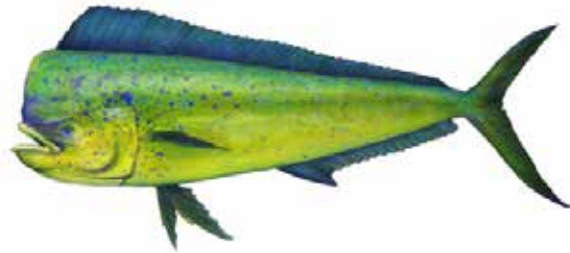


IATTC assessment workplan for low information and bycatch species



- Task 1: Develop methods to define stock structure
- Task 2: Conduct “semi-quantitative” analyses
 - § Productivity- susceptibility analyses (PSA)
 - § Ecological risk assessment (ESA) tools
- Task 3: Extensive literature review on **fishery indicators**, decision rules and management strategy evaluation (MSE)
 - § See SAC-05-11c
- Task 4: Select candidate fishery indicators, reference points, and decision rules based on literature review, life-history and data available
- Task 5: Management strategy evaluation work (MSE)
- Task 6: Routinely produce indicators for advice





QUESTIONS?