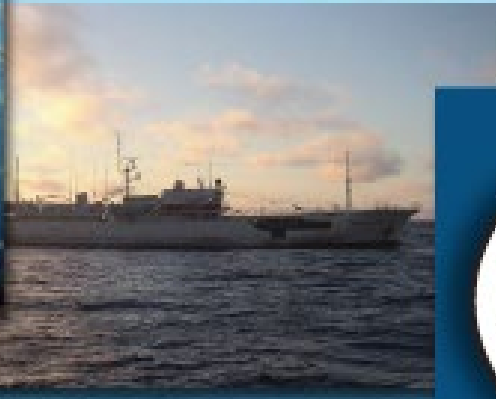


Comisión Interamericana del Atún Tropical  
Inter-American Tropical Tuna Commission



EPO Regional Tagging Tuna Program: update

# Programa Regional de Mercado de Atún-Regional Tuna Tagging Program

## Objetivos:

- Reducir la incertidumbre en evaluaciones de poblaciones de delfines, particularmente el barrilete
- Determinar tasas de desplazamiento, dispersión, y mezcla de atunes tropicales en el OPO, y entre el OPO y regiones oceánicas adyacentes
- Estimar tasas por sexo de crecimiento, mortalidad, abundancia, selectividad, y explotación para atunes tropicales en el OPO

**Base:** Solicitudes por varios CPC

## Productos:

- Informe sumario de resultados para el Comité Científico Asesor
- Estimaciones de abundancia y tasa de explotación de los atunes tropicales
- Estimaciones de parámetros biológicos y otros
- Base de datos de marcado

**Beneficios de ordenación:** Mejores evaluaciones de poblaciones y asesoramiento científico para la ordenación de atunes tropicales, especialmente barrilete

**Presupuesto:** US\$ 7,286,103

## Objectives:

- Reduce uncertainty in tuna stock assessments, particularly skipjack
- Determine rates of movement, dispersion, and mixing of tropical tunas in the EPO, and between the EPO and adjacent ocean regions
- Estimate sex-specific growth, mortality, abundance, selectivity, and exploitation rates for tropical tunas in the EPO

**Basis:** Requests by several CPCs

## Deliverables:

- Summary report of results for Scientific Advisory Committee
- Estimates of abundance and exploitation rate for tropical tunas
- Estimates of biological and other parameters
- Tagging database

**Management benefit:** Improved stock assessments and scientific advice for management of tropical tunas, especially skipjack

**Budget:** ~ US\$ 7.3 M (~ 2,5 M for 2019-2020)

# Outline

- Update on EPO Tagging Tuna Program (Project E.4.a)
  - Report of the workshop to review proposed activities
  - Report on Phase 1 (Cruise 1)



# Workshop objectives

- **Bring together** scientists with expertise in tuna tagging to share experiences and advice with IATTC staff
- **Review** objectives, methods, and results of recent tagging programs
- **Discuss:**
  - proposed activities of IATTC tagging program during 2019-2020
  - optimal and practical experimental designs
  - applications of tagging data for improving stock assessments, particularly for skipjack

# Panel of external experts

- Lisa Ailloud (ICCAT)
- Teresa Athayde (IOTC)
- Nicolas Goñi (AZTI)
- John Hampton (SPC; Chair)
- Dave Itano (ISSF)
- Bruno Leroy (SPC)
- Takayuki Matsumoto (NRIFSF, Japan)
- + IATTC staff (Kurt Schaefer, Dan Fuller and others)



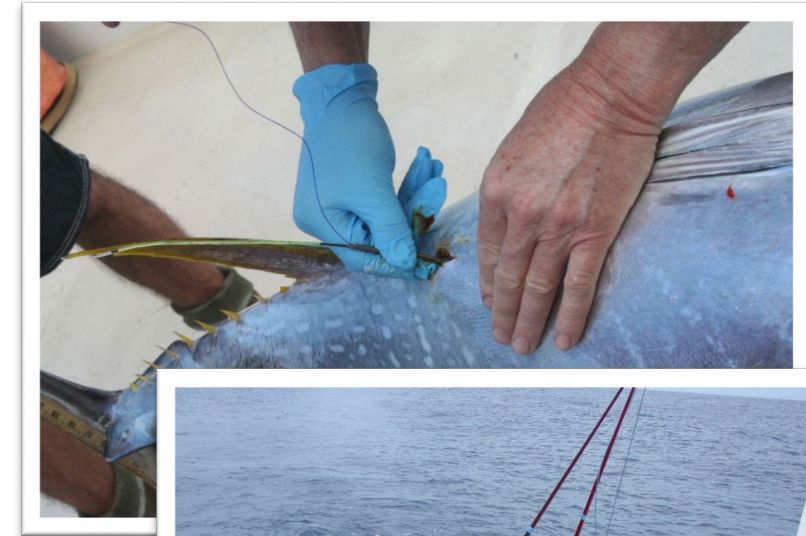
# Work plan

## Three tagging cruises:

1. March-May 2019 (mainly off Central America, northern South America, also Mexico)
  2. November 2019–January 2020 (similar)
  3. February-April 2020 (northern South America, mainly off Peru)
- Cruise duration: 85 days

## Objectives per cruise:

- Tunas in unassociated schools, floating objects, islands, seamounts, and dolphins
- 10,000 plastic dart tags (50% SKJ, 25% BET, 25% YFT)
- 300 archival tags (200 SKJ, 50 BET, 50 YFT)



# Workshop recommendations

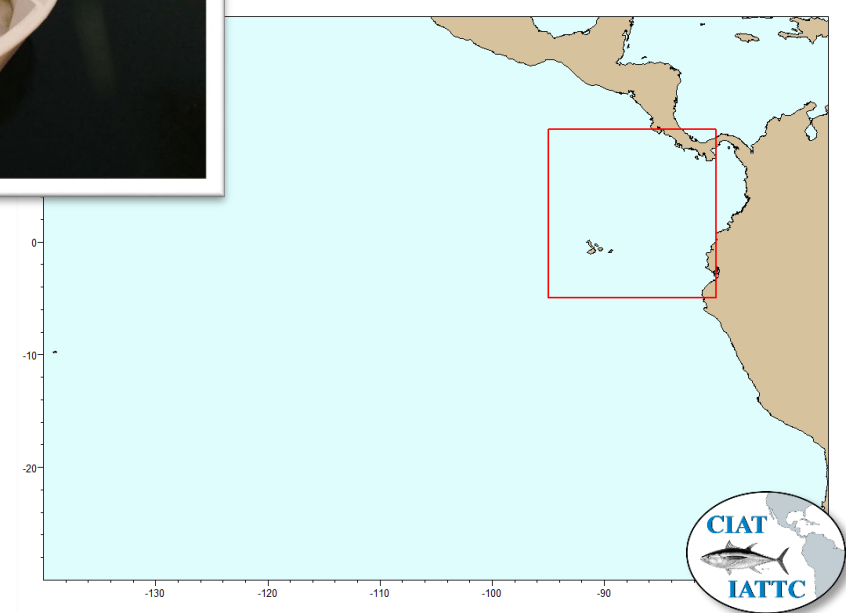
- **Objective:** obtain information on movements, mortality, growth, and exploitation rates for use in spatially-structured stock assessments, particularly for skipjack
- 1. **EPO:** Annual tagging experiments (similar to WCPO)
- 2. **Central Pacific:** In collaboration with WCPFC, tagging cruises to obtain information for EPO, WCPO, and Pacific-wide stock assessments
- 3. Distribute tags over the widest area and greatest range of fish sizes feasible

# Update on cruise 1

- Start: 8 March 2019
- Duration: 85 days
- Area of operation: 10°N-5°S, 80°W-95°W
- Pole-and-line vessel *Her Grace* (USA)
- Crew:
  - Captain + 6 crew
  - 3 scientists

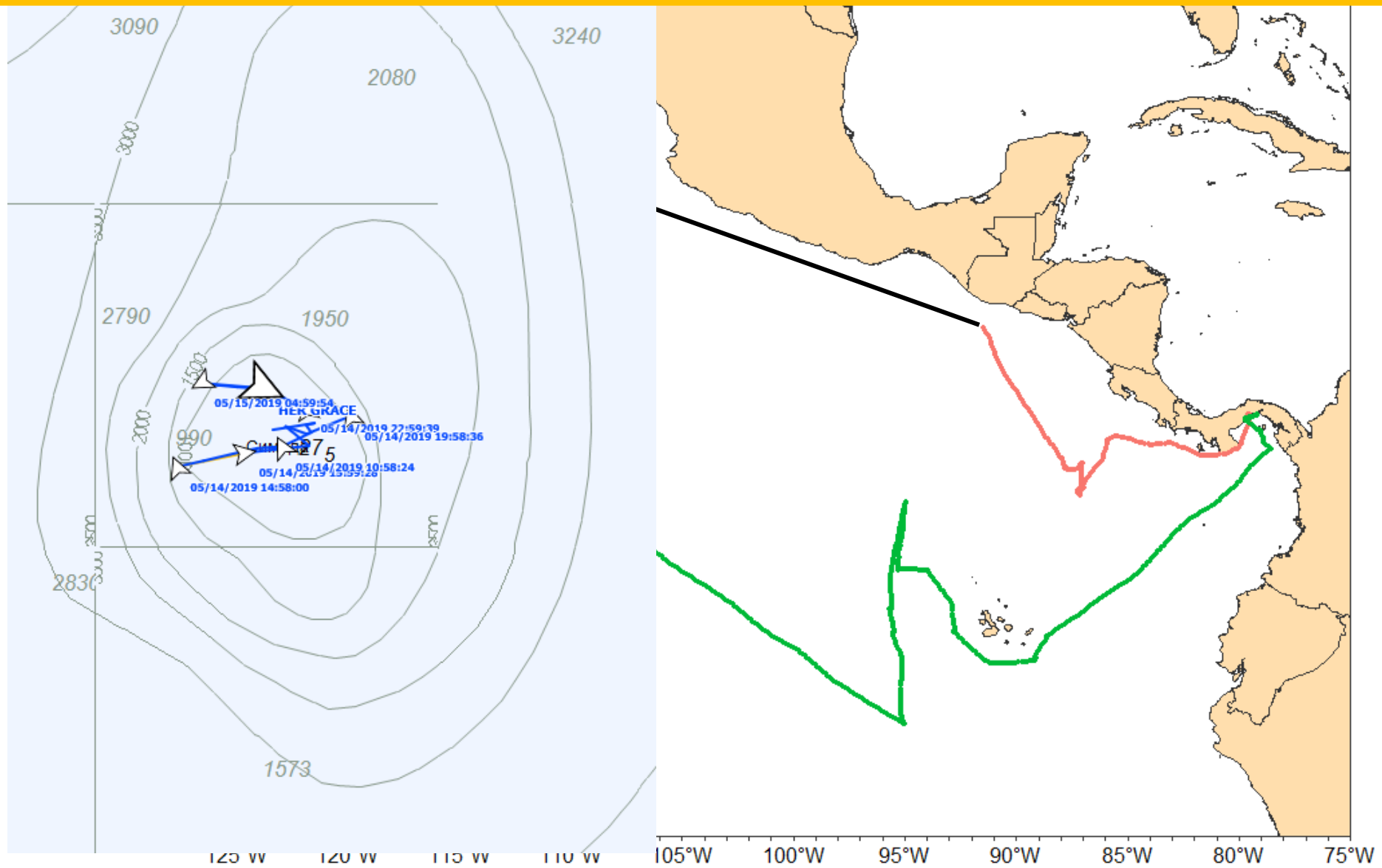


Bait: live anchoveta (*Cetengraulis mysticetus*), to be caught in the Panama Bight





# Cruise 1 - update



# Challenges encountered

- **Obtaining permits** for catching live bait and tagging tunas in EEZs.
- Permits for tagging in **marine protected areas**: Revillagigedo Islands (Mexico); Cocos Island (Costa Rica); Malpelo Island (Colombia); Galapagos Islands (Ecuador)
- Very lengthy process, not always successful