

Text S1. A description of the Ecological Assessment for the Sustainable Impacts of Fisheries (EASI-Fish) approach

Similar to other ecological risk assessment approaches, the Ecological Assessment for the Sustainable Impacts of Fisheries (EASI-Fish) approach is comprised of separate susceptibility (Table 1) and productivity (Table 2) components. The susceptibility component in EASI-Fish is used to approximate the instantaneous fishing mortality rate (F) that is compared to biological reference points (BRPs) used in the productivity component, specifically length-structured yield and biomass per-recruit models.

1.1 Estimating susceptibility of the eastern Pacific leatherback turtle stock to pelagic fisheries

EASI-Fish estimates susceptibility (S) by estimating the proportion of a length class (j)—with all reference to turtle lengths being curved carapace length (CCL)—of the EP leatherback turtle stock that is susceptible to incurring mortality by fishery x (S_{xj}) in a given year, and is represented as:

$$S_{xj} = \frac{G_x}{G} (D_x A_{xj} N_{xj} C_{xj} P_{xj}) \quad (\text{Eq. S1})$$

where G is the total number of grid cells occupied by leatherback turtles and G_x is the number of occupied grid cells containing at least one unit of fishing effort by fishery x during 2019. In this study, G was estimated from the SDM described in Lopez et al. (2024) using three probability-of-occupancy (ψ) threshold values (0.1, 0.2, and 0.3) to each 0.5° cell (see Fig 1 showing $\psi = 0.2$), based on statistically determined thresholds and verification by experts. Given the critically endangered status of EP leatherbacks, we selected relatively low ψ values to conservatively include areas where leatherbacks are likely to occur, even if in relatively low numbers and for limited periods of time. This decision was critical to ensuring that EASI-Fish would be inclusive rather than exclusive—*i.e.*, we erred on the side of inclusion versus exclusion—in its calculations of fishery impacts on leatherbacks throughout their distribution and across fisheries known to interact with the species.

Fishing effort for each fishery in 2019 was overlaid on the stock map to calculate G_x . The percentage overlap of each fishery was calculated by dividing G_x by G . Effort data for purse-seine vessels and artisanal effort were resolved at 0.5° as described above. However, data for the industrial longline fleet were available at $5^\circ \times 5^\circ$ and $1^\circ \times 1^\circ$ resolution, so it was conservatively assumed that there was at least one unit of effort in each 0.5° cell contained within each of these larger grid cells that contained effort.

The first four parameters in the parentheses of Equation 1 (D_x , A_{xj} , N_{xj} , and C_{xj}) comprise what is generically regarded as “selectivity” in conventional stock assessments, which combines, often implicitly, “population availability” (the relative probability that a turtle of length class j is located in the area and time where the fishery is operating) and “contact selectivity” (the relative probability that a turtle of length class j will be retained once it comes in contact with the gear) (Millar & Fryer 1999). Because leatherback turtle selectivity curves were not available for each fishery, it was considered important to disaggregate selectivity components as far as practicable as described hereafter.

Fishing season duration (D_x) is the proportion of the year that the population is available to fishery x , expressed as the number of fishing days divided by 365. Between 2018 and 2020 in the EPO, IATTC Resolution C-17-02 mandated an annual 72-day closure for purse-seine vessels of Class 4–6 (>182 mt carrying capacity), including a 30-day closure of the area known as the “corralito” (4°N – 5°S , 96° – 110°W).

Seasonal availability (A_{xj}) is the proportion of length class j that is available to capture by fishery x , given that some species undertake extensive intra-annual migrations outside the boundaries of the fishery, where they are unavailable for fishery interactions. Given that electronic tagging studies of

leatherback turtles in the EPO indicate wide-ranging movements throughout the year (Shillinger et al. 2008, Schick et al. 2013), value of 1.0 was used for length class j in fishery x .

Encounterability (N_{sj}) is the proportion of length class j that may potentially encounter the gear used by fishery x based on the species' distribution in the water column relative to the normal fishing depth range of the gear. Minimum (0 m), average maximum (~200 m), and overall average (~50 m) dive depths of leatherback turtles were defined using the results from electronic tagging studies (Shillinger et al. 2011). The effective fishing depth range for each fishery in the EPO was defined as:

- 0–200 m for purse-seine vessels Class 6 (Hall & Roman 2013),
- 0–120 m for purse-seine vessels Classes 1–5,
- 0–300 m for longlines, which covers the depth range of both 'shallow' and 'deep' sets (see Griffiths et al. 2017),
- 0–100 m for surface-set longlines set by the artisanal fishery, which covers the depth range to the deepest hook of both shallow 'dorado' sets and deeper 'tuna/billfishes/shark' sets (see Andraka et al. 2013),
- 0–100 m for surface-set gillnets set by the artisanal fishery that typically target sharks (Ayala et al. 2008).

Therefore, given the nearly complete overlap between fishing depth ranges and leatherback dive depth range, a value of 1 was used for length class j after the length of first capture (see below) in fishery x .

For the egg collection "fishery" that operates on land, fishing depth is irrelevant and so a different, and a more precise, estimate of encounterability was used. Leatherback turtle nesting locations in Mexico, Central America, and South America have been comprehensively mapped by the Laúd OPO Network, SWOT, and IAC. Collection of leatherback turtle eggs has been estimated to occur in 1% and 4% of these nests in Costa Rica (Santidrián Tomillo et al. 2008) and Mexico (Sarti Martínez et al. 2007), respectively (Laúd OPO Network 2020). Therefore, a precautionary approach was taken by assuming that the egg collection fishery encounters 4% of all nests at documented nesting sites in the southeastern EPO.

Contact selectivity (C_{sj}) describes the proportion of length class j that is retained once it encounters the gear used by fishery x . In the absence of reliable gear selectivity curves for leatherback turtles, knife-edge selectivity ($C_{sj} = 1.0$) was assumed from 90 cm (Swimmer et al. 2011). Smaller leatherbacks have been documented (e.g., Swimmer et al. 2011; Unpublished IATTC observer data), but these are exceptional records. Estimated reductions in bycatch rates from published research (e.g., Swimmer et al. 2017, Allman et al. 2021) and the workgroup's expert assessment afforded by CMMs such as large circle hooks, finfish bait, and gillnet illumination were applied to this contact selectivity term (Table 3), which is detailed further in Section 2.7.1.

IATTC Resolution C-19-04 mandates the release of sea turtles in all fisheries. Therefore, fishing mortality would be overestimated unless the component of the catch that survives mandatory release is accounted for. This is introduced in the model as post-capture mortality (PCM) (P_{sj})—incorporating two separate components—the proportion of length class j that is caught by fishery x and 1) dies before or upon arrival at the vessel (*i.e.*, "at-vessel mortality") or 2) dies soon after release ("post-release mortality"). PCM was highest for the egg collection fishery ($P_{sj} = 1.0$) since this "fishery" intentionally harvests eggs for human consumption. In the absence of reliable data relating to PCM in the longline fishery and the multiple set types made by the all size classes of purse-seine vessels, we needed to make the precautionary assumption that PCM > 0% for each fishery. PCM estimates for all fisheries are described in detail below; and Table 3 details each parameter value used in each scenario.

1.2. Using susceptibility estimates to calculate the instantaneous fishing mortality rate (F)

Following the estimation of the overall susceptibility of length class j to incurring mortality from fishery x (S_{xj}), a proxy for the instantaneous fishing mortality rate in 2019 (\tilde{F}_{2019}) for leatherback turtles caught by all fisheries was estimated as:

$$\tilde{F}_{2019} = -\ln \left[1 - \sum_{x=1} q_x E_x \left(\frac{\sum_{j=1}^n S_{xj}}{n} \right) \right] \quad (\text{Eq. 2})$$

Here, n is the number of length classes (in 2-cm increments) extending to the average length at which a leatherback turtle may grow if it were to live indefinitely (L_∞). Fishing effort (E_x) is total effort, scaled from zero to 1, of fishery x applied in area G_x in 2019, while the catchability coefficient (q_x) is the fraction of the stock that is caught by one unit of effort (E_x) in fishery x . In many data-limited fisheries values for q and E are unknown. A precautionary approach was used to assume both parameters are equal to 1, meaning all leatherback turtles in a grid cell are caught if all other susceptibility parameters are fully realised.

\tilde{F}_{2019} was then compared with values for F for the selected BRPs derived from the per-recruit models (described below; productivity parameters presented in Table 2). However, it needs to be reiterated that, because of the several conservative assumptions and likely uncertainty in the parameters used in deriving the \tilde{F}_{2019} estimate, it should only be considered a proxy for F . It is for this reason that the results from EASI-Fish should not be used to define the status of a species' population, *sensu* a stock assessment.

1.3. Characterising leatherback turtle productivity using per-recruit models

A yield-per-recruit (YPR) model was used to characterise the biological dynamics of leatherback turtles using the generic approach of Ricker (1975), which Chen and Gordon (1997) adapted for lengths as:

$$YPR = \sum_{j=1}^n \frac{W_j b_j F}{b_j F + M} \left[1 - e^{-(b_j F + M)\Delta T_j} \right] e^{-\sum_{k=1}^{j-1} (b_k F + M)\Delta T_k} \quad (\text{Eq. 3})$$

Here, new recruits and fully recruited length classes are denoted by the subscripts j and k , respectively. W_j is the mean weight of a turtle in length class j , while selectivity (b_j) is the proportion of the population in length class j that is caught across all fisheries, represented as:

$$b_j = \sum_{x=1}^n S_{xj} \quad (\text{Eq. 4})$$

Length-specific estimates of the instantaneous natural mortality rate (M yr⁻¹) were taken from concurrent long-term studies of leatherback turtles returning to nesting sites in Mexico and Costa Rica (Laúd OPO Network 2020) (Table 4). These were 0.53–0.69 yr⁻¹, 0.937 yr⁻¹, 0.5 yr⁻¹, and 0.212–0.295 yr⁻¹ for size classes 0–5 cm, 5–40 cm, 40–100 cm, and >100 cm, respectively. Value ranges for M were assumed to be equally plausible and so uniform distribution priors was used for M . F was disaggregated

into increments of 0.01 from zero to an L_∞ value of 147.6 cm (Zug & Parham 1996). The parameter ΔT represents the time taken for a turtle to grow from one length class to the next, represented as:

$$\Delta T_j = \frac{1}{K} \ln \frac{L_\infty - L_j}{L_\infty - L_j - d_j} \quad (\text{Eq. 5})$$

where K and L_∞ are parameters from the von Bertalanffy growth function (Table 3), and d is the width of the length class, calculated as $L_{j+1} - L_j$.

The spawning stock biomass-per-recruit (SSB/R) model of Quinn and Deriso (1999)—herein termed breeding stock biomass-per-recruit (BSR) to be specific to turtle life histories—is complementary to YPR, and can be modified to suit the analysis of length rather than age classes and be represented as:

$$BSR = \sum_{j=1}^n W_j m_j \prod_{x=r}^{j-1} e^{-(b_j F + M)} \quad (\text{Eq. 6})$$

where W_j is the mean weight of a leatherback turtle in length class j (L_j) taken from a length-weight relationship (Table 3), m_j is the proportion of mature females at the mean length of length class j , and the product operator describes the number of turtles surviving from the length at recruitment (L_r) to L_j . Because the model calculates relative BSR, the initial number of breeding females was set to a value of one. The value for m_j was taken from a female maturity ogive for leatherback turtles in the EPO (Avens et al. 2020), represented in the logistic form:

$$m_j = \frac{1}{1 + e^{(-r(L_j - L_{50}))}} \quad (\text{Eq. 7})$$

where L_j is the mean length of a turtle in length class j , L_{50} is the length at which 50% of the population is mature, and r is the curvature parameter.

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Table S1. Data sources and period of coverage of fishing effort data used to define the spatial distribution of effort by each fishery in the EPO. Data sources with an asterisk (*) contained fishing effort distribution maps that were manually geo-referenced and the locations of each fishing event attributed to an appropriate grid cell to indicate presence of fishing.

Fishery	Country	Year	Data resolution	Comments and data source
Industrial fisheries				
Longline	IATTC Convention Area	2018	Monthly aggregates of number of hooks deployed at 5°x5° resolution (reports by CPCs); positional set data downscaled to 0.5°x0.5° resolution (observer data).	Unpublished data from logbooks and national observer programs submitted to the IATTC.
	Mexico (Pacific Ocean and Gulf of California)	2006–2009; 2006–2013; 2009–2012; 2018	Positional set data upscaled to 5°x5° resolution to enable incorporation with LSTLFVs.	Castillo-Geniz <i>et al.</i> (2016)*; Castillo-Geniz <i>et al.</i> (2017)*; Carreón-Zapiain <i>et al.</i> (2018)*; Pacific Large Pelagics Program, INAPESCA*
	Mexico (Central Pacific coast)	2003–2011	Positional set data upscaled to 5°x5° resolution to enable incorporation with LSTLFVs.	Hernández and Valdez Flores (2016)*
Purse-seine (Class 6 - all set types)	IATTC Convention Area	2018	Positional set data upscaled to 0.5°x0.5° resolution.	Unpublished data collected by the AIDCP and National observer programs and held by the IATTC.
Purse-seine (Class 1–5 - all set types)	IATTC Convention Area	2018	Positional set data upscaled to 0.5°x0.5° resolution.	Unpublished data collected by TUNACONS observer program and IATTC staff at landing ports (logbooks).
Artisanal fisheries				
Surface-set gillnet	Chile (Northern and Central)	2016	Positional set data upscaled to 0.5°x0.5° resolution.	Martínez <i>et al.</i> (2017)*
	Guatemala, El Salvador, Nicaragua, Costa Rica, Panama	2018	Positions of access and unloading points allocated to adjacent 0.5°x0.5° grid cells	Oliveros-Ramos <i>et al.</i> (2019)
	Mexico (Northwestern Gulf of California)	1998–1999	Positions of fishing camps allocated to adjacent 0.5°x0.5° grid cells	Smith <i>et al.</i> (2009)*
	Mexico (Southwestern Gulf of California)	1998–1999	Positions of fishing camps allocated to adjacent 0.5°x0.5° grid cells	Bizzarro <i>et al.</i> (2009a)*
	Mexico (Northeastern Gulf of California)	1998–1999	Positions of fishing camps allocated to adjacent 0.5°x0.5° grid cells	Bizzarro <i>et al.</i> (2009b)*
	Mexico, Panama	2017–2018	Positions of fishing ports allocated to adjacent 0.5°x0.5° grid cells	Ortiz-Álvarez <i>et al.</i> (2020)
	Nicaragua, Costa Rica, Colombia	2016–2017	Positions of fishing ports allocated to adjacent 0.5°x0.5° grid cells	Ortiz-Álvarez <i>et al.</i> (2020)
	Peru and Chile	2005–2007;	Positional set data upscaled to 0.5°x0.5° resolution.	Alfaro-Shigueto <i>et al.</i> (2011)*
	Peru	2007	Positional set data upscaled to 0.5°x0.5° resolution.	Ayala <i>et al.</i> (2008)*
Surface-set longline	Chile (Northern and Central)	2001–2005; 2016	Positional set data upscaled to 0.5°x0.5° resolution.	Donoso and Dutton (2010); Martínez <i>et al.</i> (2017)*
	Chile (Southern)	2002	Positional set data upscaled to 1°x1° resolution.	Moreno <i>et al.</i> (2006)*
	Chile and Peru	2005–2010	Annual aggregates of number of sets at 1°x1° resolution.	Doherty <i>et al.</i> (2014)*
	Ecuador	2008–2012	Positional set data upscaled to 0.5°x0.5° resolution.	Martínez-Ortiz <i>et al.</i> (2015)*
	Ecuador, Panama, Costa Rica	2004–2010	Positional set data upscaled to 0.5°x0.5° resolution.	Unpublished IATTC and INCOPECSA observer data.
	Guatemala, El Salvador, Nicaragua, Costa Rica, Panama	2018	Positions of access and unloading points allocated to adjacent 0.5°x0.5° grid cells	Oliveros-Ramos <i>et al.</i> (2019)
	Mexico (Western Sea of Cortez)	1998–1999	Positions of fishing camps allocated to adjacent 0.5°x0.5° grid cells	Bizzarro <i>et al.</i> (2009a)*
	Mexico (Northeastern Gulf of California)	1998–1999	Positions of fishing camps allocated to adjacent 0.5°x0.5° grid cells	Bizzarro <i>et al.</i> (2009b)*
	Mexico, Panama	2017–2018	Positions of fishing ports allocated to adjacent 0.5°x0.5° grid	Ortiz-Álvarez <i>et al.</i> (2020)

Fishery	Country	Year	Data resolution	Comments and data source
Industrial fisheries				
			cells	
	Nicaragua, Costa Rica, Colombia	2016–2017	Positions of fishing ports allocated to adjacent 0.5°x0.5° grid cells	Ortiz-Álvarez <i>et al.</i> (2020)
	Peru	2004–2006; 2007	Positional set data downscaled to 0.5°x0.5° resolution.	Ayala <i>et al.</i> (2008)*; Alfaro-Shigueto <i>et al.</i> (2011)*
Egg collection	Costa Rica	1995–2006	Nest positions allocated to adjacent 0.5°x0.5° grid cells	La Red de la Conservación de la Tortuga Laúd del Océano Pacífico Oriental; Troëng <i>et al.</i> (2007)*
	Mexico	1982–2004	Nest positions allocated to adjacent 0.5°x0.5° grid cells	La Red de la Conservación de la Tortuga Laúd del Océano Pacífico Oriental; Sarti Martínez <i>et al.</i> (2007)*

Table S2. Summary table of 71 hypothetical scenarios to evaluate the potential efficacy of implementing various CMMs on reducing EP leatherback vulnerability. EASI-Fish parameters marked with “X” or “XX” are those affected by one or two CMMs, respectively, in each scenario. See Methods for more details about each parameter and estimated efficacy of each CMM.

CMM SCENARIO	Scenario number	Industrial longline			Purse seine			Small-scale longlines			Small-scale drift gillnets						
		Duration of fishing season (Dx)	contact selectivity (Cxj)	at-vessel mortality (AVM)	post-release mortality (PRM)	Duration of fishing season (Dx)	contact selectivity (Cxj)	at-vessel mortality (AVM)	post-release mortality (PRM)	Duration of fishing season (Dx)	contact selectivity (Cxj)	at-vessel mortality (AVM)	post-release mortality (PRM)				
Baseline EASI-Fish values	0																
STATUS QUO	1																
Circle hooks, industrial longlines	2-4		X														
Circle hooks, all longlines	5-7		X							X							
Finfish bait, industrial longlines	8-10		X														
Finfish bait, all longlines	11-13		X							X							
Best handling practices, industrial longlines	14-16				X												
Best handling practices, all longlines	17-19				X							X					
Best handling practices, all IATTC fisheries	20-22				X			X									
Best handling practices, all fisheries	23-25				X			X				X					X
Circle hooks + finfish bait, industrial longlines	26-28		XX														
Circle hooks + finfish bait, all longlines	29-31		XX							XX							
Circle hooks + best practices, industrial longlines	32-34		X		X												
Circle hooks + best practices, all longlines	35-37		X		X					X		X					
Circle hooks + finfish bait + best practices, industrial longlines	38-40		XX		X												
Circle hooks + finfish bait +	41-43		XX		X					XX		X					

best practices, all longlines																	
Circle hooks + finfish bait + best practices, all fisheries	44-46		XX		X				X		XX		X				X
Finfish bait + best practices, industrial longlines	47-49		X		X												
Finfish bait + best practices, all longlines	50-52		X		X						X		X				
Illuminated gillnets	53-55															X	
Illuminated gillnets + best handling practices	56-58															X	X
Circle hooks + finfish bait + illuminated gillnets + best practices, all fisheries	59-61		XX		X				X		XX		X			X	X
Purse seine closures (62: 60d, 63: 90d, 64: 120d, 65: 150d, 66: 180d)	62-66						X										
Industrial fisheries closures (67: 60d, 68: 90d, 69: 120d, 70: 150d, 71: 180d)	67-71	X					X										

Table S3. Raw inputs for all scenarios used in EASI-Fish vulnerability assessment of EP leatherback turtles. Scenario 1 contains the ‘*status quo*’ values for susceptibility parameters for each fishery category included in the analysis. All subsequent scenarios include adjustment of some parameter value or values based on theoretical application of some conservation management measure (CMM). Cells shaded blue highlight specific parameter values that are adjusted relative to *status quo* in each CMM scenario. See Methods for definitions of parameter values.

SCENARIO				At-vessel mortality (AVM) values						Post-release mortality (PRM) values				
Num	Description	Fishery	Duration of fishing season (Dx)	Seasonal availability (Axj)	length class susceptible to fishing mortality (j)	encounterability (Nxj)	effective depth range	contact selectivity (Cxj)	preferred	min	max	preferred	min	max
1	Baseline values + realistic post-interaction mortality	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
2	circle hooks in IATTC longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.308	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
3	circle hooks in IATTC longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
4	circle hooks in IATTC longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.8	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
5	circle hooks in all longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.308	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.411	0.010	0.001	0.015	0.250	0.100	0.400
6	circle hooks in all longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.250	0.100	0.400
7	circle hooks in all longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.8	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.8	0.010	0.001	0.015	0.250	0.100	0.400
8	fish bait in IATTC longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.656	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
9	fish bait in IATTC longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.5	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
10	fish bait in IATTC longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.9	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
11	fish bait in all longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.656	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.656	0.010	0.001	0.015	0.250	0.100	0.400
12		longlines	1	1	>90 cm (CCL)	1	0-300	0.5	0.010	0.001	0.015	0.300	0.100	0.500

SCENARIO				At-vessel mortality (AVM) values					Post-release mortality (PRM) values					
Num	Description	Fishery	Duration of fishing season (Dx)	Seasonal availability (Axj)	length class susceptible to fishing mortality (j)	encounterability (Nxj)	effective depth range	contact selectivity (Cxj)	preferred	min	max	preferred	min	max
	fish bait in all longlines (BEST-CASE [MAX EFFICACY])	purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.5	0.010	0.001	0.015	0.250	0.100	0.400
13	fish bait in all longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.9	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
	best handling practices in IATTC longlines (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.9	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
14	best handling practices in IATTC longlines (INTERMEDIATE EFFICACY)	small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.150	0.050	0.250
15	best handling practices in IATTC longlines (BEST-CASE [MAX EFFICACY])	purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
16	best handling practices in IATTC longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
	best handling practices in IATTC longlines (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
17	best handling practices in all longlines (INTERMEDIATE EFFICACY)	small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.063	0.025	0.100
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.150	0.050	0.250
18	best handling practices in all longlines (BEST-CASE [MAX EFFICACY])	purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.013	0.005	0.020
19	best handling practices in all longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
	best handling practices in all longlines (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.125	0.050	0.200
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.005	0.001	0.010
20	best handling practices in IATTC fisheries (INTERMEDIATE EFFICACY)	small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.125	0.050	0.200
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.150	0.050	0.250
21	best handling practices in IATTC fisheries (BEST-CASE [MAX EFFICACY])	purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.003	0.001	0.005
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.125	0.050	0.200
22	best handling practices in IATTC fisheries (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.010	0.002	0.020
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
	best handling practices in IATTC fisheries (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.125	0.050	0.200
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.005	0.001	0.010
23	best handling practices in all fisheries (INTERMEDIATE EFFICACY)	small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.375	0.150	0.450
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.063	0.025	0.100
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.150	0.050	0.250
24	best handling practices in all fisheries (BEST-CASE [MAX EFFICACY])	purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.003	0.001	0.005
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.250	0.100	0.300
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.013	0.005	0.020
25	best handling practices in all fisheries (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.010	0.002	0.020
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.450	0.180	0.540
	best handling practices in all fisheries (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.125	0.050	0.200

SCENARIO				At-vessel mortality (AVM) values						Post-release mortality (PRM) values				
Num	Description	Fishery	Duration of fishing season (Dx)	Seasonal availability (Axj)	length class susceptible to fishing mortality (j)	encounterability (Nxj)	effective depth range	contact selectivity (Cxj)	preferred	min	max	preferred	min	max
26	circle hooks + fish bait in IATTC longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.287	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
27	circle hooks + fish bait in IATTC longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
28	circle hooks + fish bait in IATTC longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.6	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
29	circle hooks + fish bait in all longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.287	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.4	0.010	0.001	0.015	0.250	0.100	0.400
30	circle hooks + fish bait in all longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.250	0.100	0.400
31	circle hooks + fish bait in all longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.6	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.7	0.010	0.001	0.015	0.250	0.100	0.400
32	circle hooks + best practices in IATTC longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.308	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
33	circle hooks + best practices in IATTC longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
34	circle hooks + best practices in IATTC longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.8	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
35	circle hooks + best practices in all longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.308	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.411	0.010	0.001	0.015	0.063	0.025	0.100
36	circle hooks + best practices in all longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.013	0.005	0.020
37	circle hooks + best practices in all longlines (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.8	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.8	0.010	0.001	0.015	0.125	0.050	0.200
38	circle hooks + fish bait + best handling practices in IATTC longlines (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.287	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
39	circle hooks + fish bait + best handling practices in IATTC longlines (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600

SCENARIO				At-vessel mortality (AVM) values						Post-release mortality (PRM) values				
Num	Description	Fishery	Duration of fishing season (Dx)	Seasonal availability (Axj)	length class susceptible to fishing mortality (j)	encounterability (Nxj)	effective depth range	contact selectivity (Cxj)	preferred	min	max	preferred	min	max
40	circle hooks + fish bait + best handling practices in IATTC longlines (WORST-CASE [MIN EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.6	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
41	circle hooks + fish bait + best handling practices in all longlines (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.287	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
42	circle hooks + fish bait + best handling practices in all longlines (BEST-CASE [MAX EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
43	circle hooks + fish bait+ best handling practices in all longlines (WORST-CASE [MIN EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.6	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
44	circle hooks + fish bait + best handling practices in all fisheries (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.287	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.005	0.001	0.010
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.375	0.150	0.450
45	circle hooks + fish bait + best handling practices in all fisheries (BEST-CASE [MAX EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.003	0.001	0.005
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.250	0.100	0.300
46	circle hooks + fish bait + best handling practices in all fisheries (WORST-CASE [MIN EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.6	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.010	0.002	0.020
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.450	0.180	0.540
47	fish bait + best practices in IATTC longlines (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.656	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
48	fish bait + best practices in IATTC longlines (BEST-CASE [MAX EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.5	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
49	fish bait + best practices in IATTC longlines (WORST-CASE [MIN EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.9	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
50	fish bait + best practices in all longlines (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.656	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
51	fish bait + best practices in all longlines (BEST-CASE [MAX EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.5	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
52	fish bait + best practices in all longlines (WORST-CASE [MIN EFFICACY])	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.9	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
53	illuminated gillnets (INTERMEDIATE EFFICACY)	small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	0.9	0.010	0.001	0.015	0.225	0.075	0.375
53	illuminated gillnets (INTERMEDIATE EFFICACY)	purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100

SCENARIO				At-vessel mortality (AVM) values						Post-release mortality (PRM) values				
Num	Description	Fishery	Duration of fishing season (Dx)	Seasonal availability (Axj)	length class susceptible to fishing mortality (j)	encounterability (Nxj)	effective depth range	contact selectivity (Cxj)	preferred	min	max	preferred	min	max
54	illuminated gillnets (BEST-CASE [MAX EFFICACY])	small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.5	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.2	0.500	0.200	0.800	0.500	0.200	0.600
small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400		
55	illuminated gillnets (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.7	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
56	illumination + best practices in gillnets (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.5	0.500	0.200	0.800	0.375	0.150	0.450
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
57	illumination + best practices in gillnets (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.2	0.500	0.200	0.800	0.250	0.100	0.300
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
58	illumination + best practices in gillnets (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.7	0.500	0.200	0.800	0.450	0.180	0.540
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
59	circle hooks + fish bait + illuminated nets + best handling practices in all fisheries (INTERMEDIATE EFFICACY)	longlines	1	1	>90 cm (CCL)	1	0-300	0.287	0.010	0.001	0.015	0.225	0.075	0.375
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.005	0.001	0.010
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.5	0.500	0.200	0.800	0.375	0.150	0.450
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.4	0.010	0.001	0.015	0.063	0.025	0.100
60	circle hooks + fish bait + illuminated nets + best handling practices in all fisheries (BEST-CASE [MAX EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.150	0.050	0.250
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.003	0.001	0.005
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.2	0.500	0.200	0.800	0.250	0.100	0.300
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.2	0.010	0.001	0.015	0.013	0.005	0.020
61	circle hooks + fish bait + illuminated nets + best handling practices in all fisheries (WORST-CASE [MIN EFFICACY])	longlines	1	1	>90 cm (CCL)	1	0-300	0.6	0.010	0.001	0.015	0.270	0.090	0.450
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.010	0.002	0.020
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	0.7	0.500	0.200	0.800	0.450	0.180	0.540
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	0.7	0.010	0.001	0.015	0.125	0.050	0.200
62	purse seine closure 60d	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
63	purse seine closure 90d	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.75	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
64	purse seine closure 120d	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.67	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
65	purse seine closure 150d	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.6	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
66	purse seine closure 180d	longlines	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.5	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
67	industrial fisheries closure 60d	longlines	0.83	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500

SCENARIO				At-vessel mortality (AVM) values						Post-release mortality (PRM) values				
Num	Description	Fishery	Duration of fishing season (Dx)	Seasonal availability (Axj)	length class susceptible to fishing mortality (j)	encounterability (Nxj)	effective depth range	contact selectivity (Cxj)	preferred	min	max	preferred	min	max
68	industrial fisheries closure 90d	purse seine	0.83	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
		longlines	0.75	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.75	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
69	industrial fisheries closure 120d	longlines	0.67	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.67	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
70	industrial fisheries closure 150d	longlines	0.6	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.6	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400
71	industrial fisheries closure 180d	longlines	0.5	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.300	0.100	0.500
		purse seine	0.5	1	>90 cm (CCL)	1	0-300	1	0.001	0.000	0.002	0.050	0.010	0.100
		small-scale driftnet	1	1	>90 cm (CCL)	1	0-300	1	0.500	0.200	0.800	0.500	0.200	0.600
		small-scale longline	1	1	>90 cm (CCL)	1	0-300	1	0.010	0.001	0.015	0.250	0.100	0.400