

SEA TURTLE BYCATCH ASSESSMENT IN THE ARTISANAL FISHERIES OF SURINAME



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WIDECAST 2019 ANNUAL GENERAL MEETING

19 March 2019
Paramaribo,
SURINAME

KIM SYS
WWF Suriname



WIDECAST
Wider Caribbean Sea Turtle Conservation Network

ESTIMATION OF THE NUMBER OF SEA TURTLES THAT DIED AFTER ENTANGLEMENT
WITH FISHING GEAR IN ARTISANAL FISHERIES OF SURINAME BETWEEN
SEPTEMBER 2015 AND AUGUST 2016

250

ARTISANAL FISHING SECTOR OF SURINAME



400 FISHING LICENSES



17000 TON FISH/YEAR



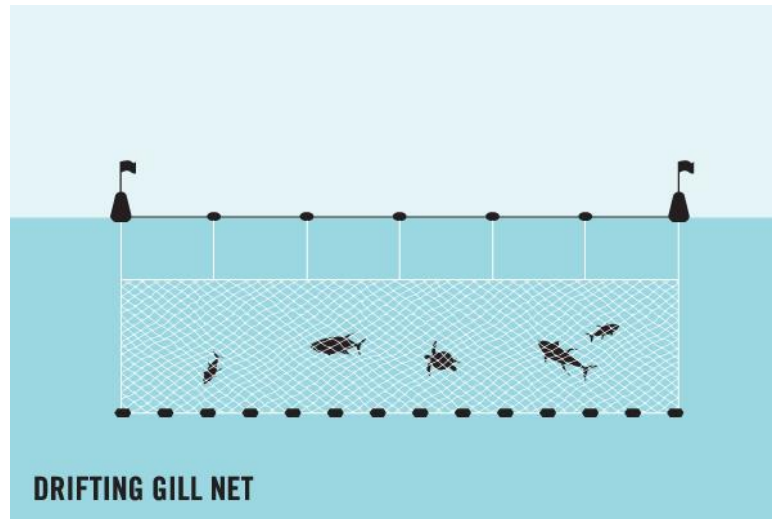
IUU FISHING

Dieptelijnen visserij - Suriname



ARTISANAL FISHING SECTOR OF SURINAME

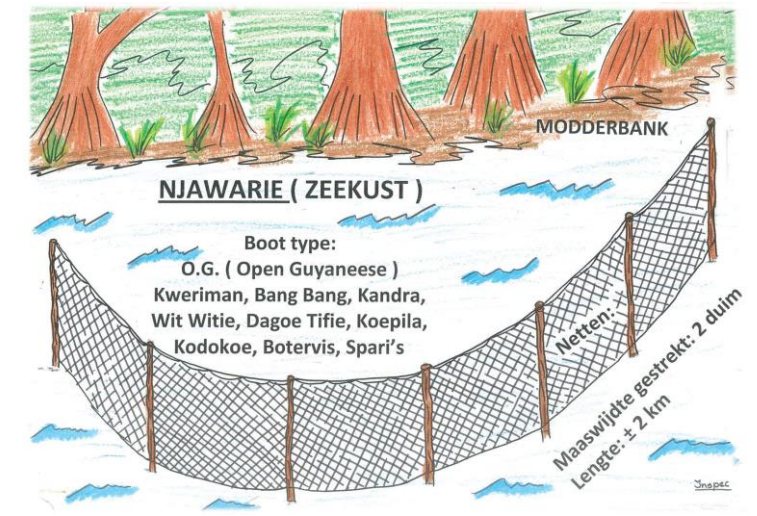
DRIFTING GILL NETS SK OG – SK GG - SKB



LONGLINES

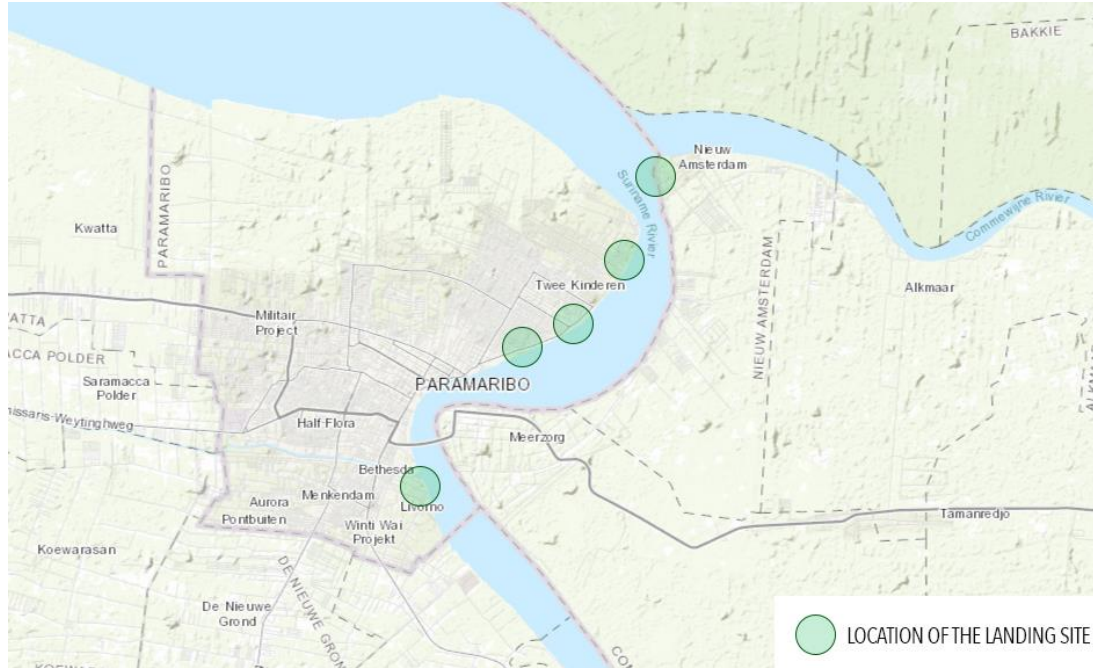


NJAWARIE



METHODOLOGY

- INTERVIEWS WITH FISHERMEN BY DATA COLLECTORS – SEPTEMBER 2015 TILL AUGUST 2016

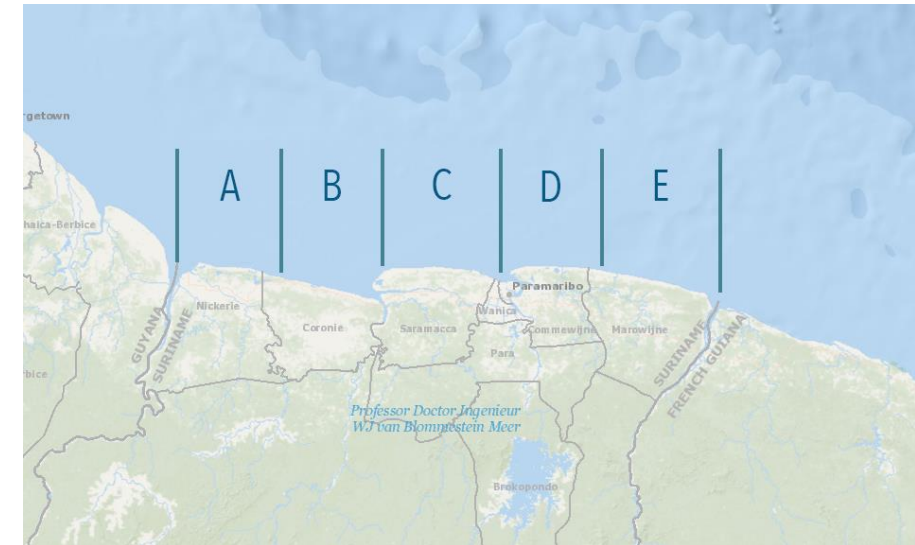


RELUCTANCE TO SHARE
INFORMATION

METHODOLOGY

- STANDARDIZED DATA COLLECTION FORM

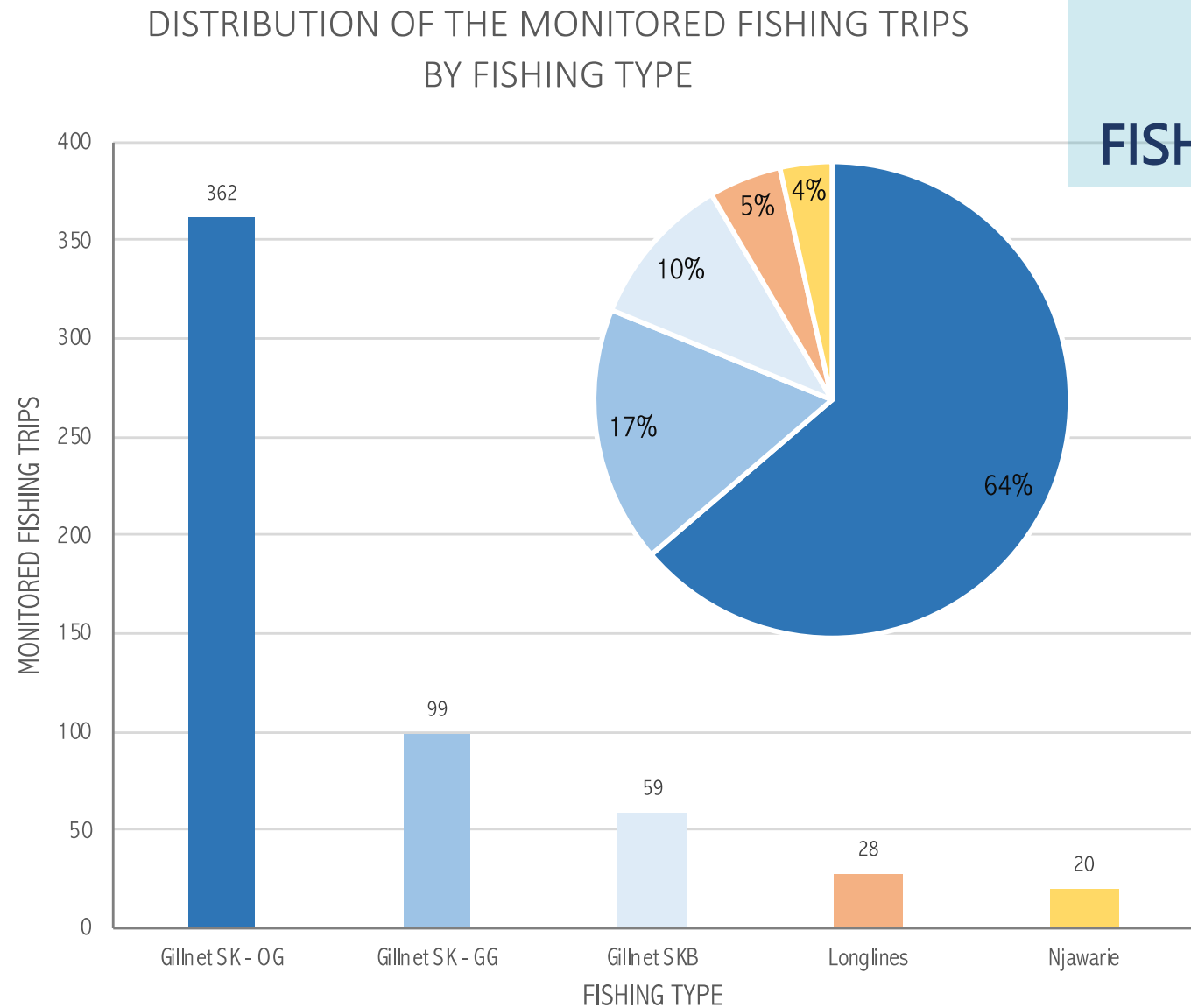
INFO DATA COLLECTOR	SEA TURTLE DATA
Date of the data collection	Sea turtle species
Name of the data collector	Number caught by species
Location of the landing harbour	Size
FISHING TRIP DATA	Condition
Vessel registration number	Location
Fishing technique	SHARK DATA
VMS present/absent	Shark species
Length of the fishing net (meter)	Number caught by species
Mesh size (thumbs)	Size
Length fishing trip (days)	Location
12 -- 24	RAY DATA
Soaking time (hours)	Ray species
Capacity cooling facility (liter)	Number caught by species
Number of crew members	Size
FISH LANDING DATA	Location
Fish species	FISH BLADDER DATA
Total landings (kg) by fish species	Origin of fish species
	Volume (kg) by fish species
REMARKS	MAP WITH FISHING AREAS



RESULTS

MONITORED FISHING TRIPS

> 90 %
Drifting Gill Nets



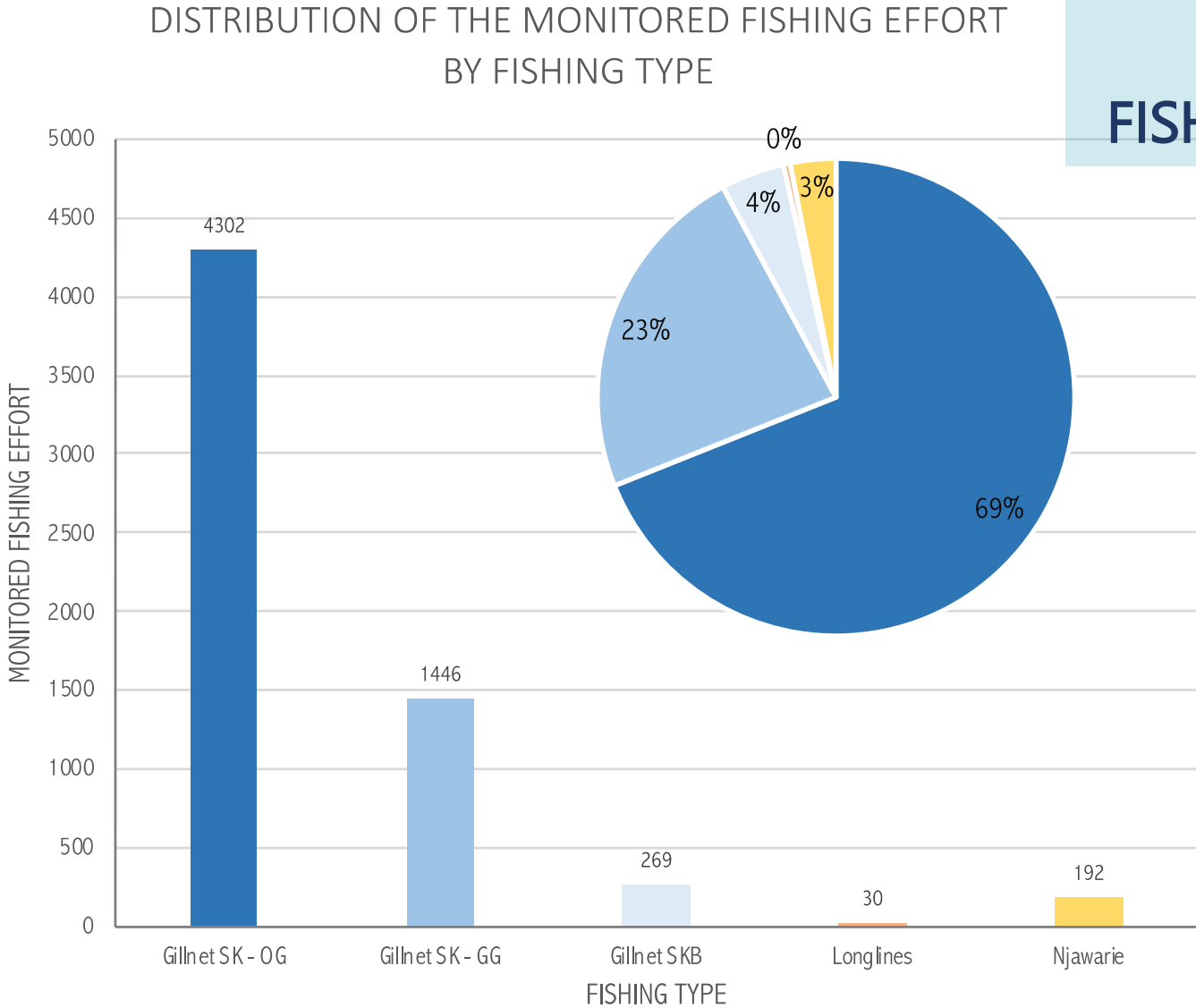
568
FISHING TRIPS

RESULTS

MONITORED FISHING EFFORT

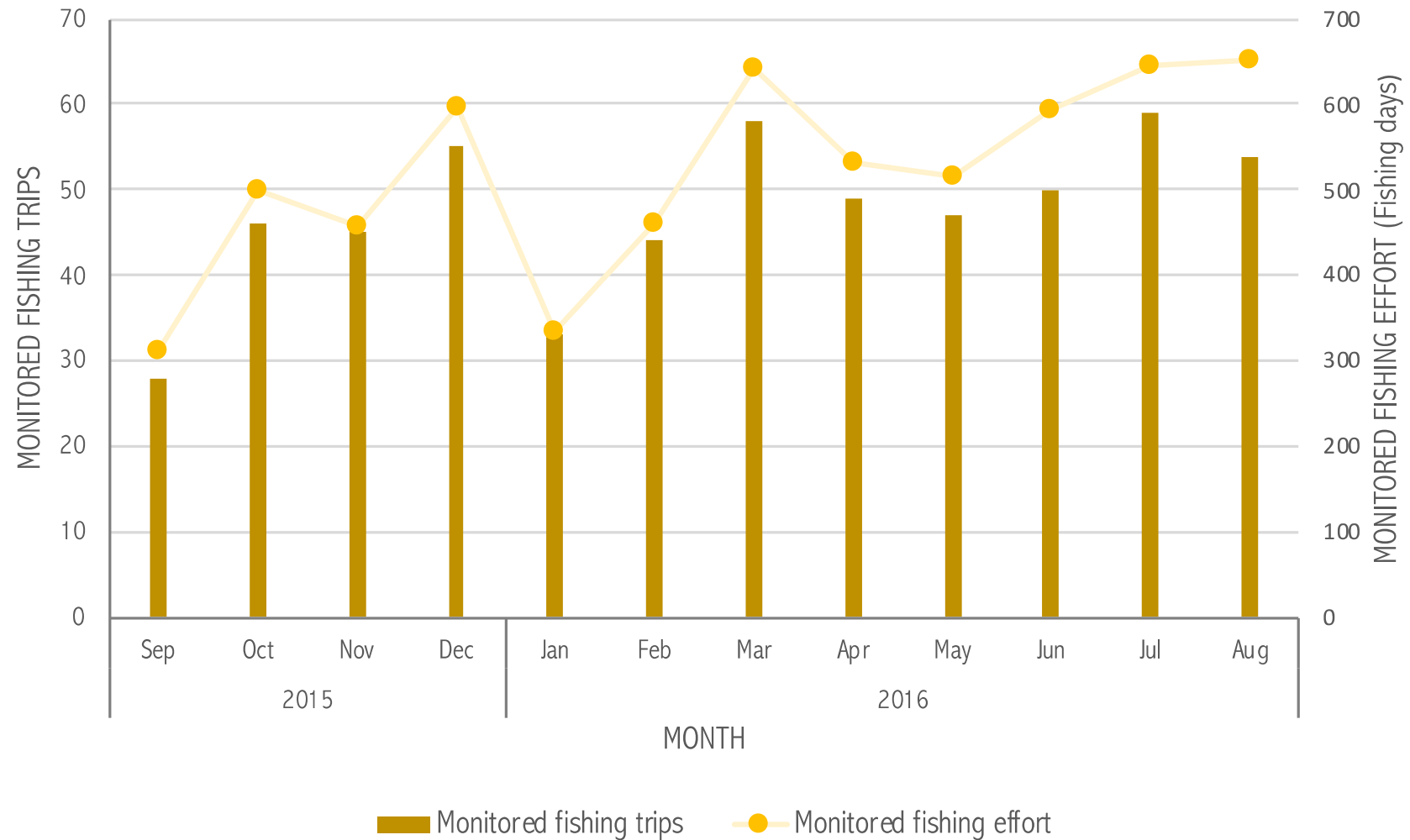
> 95 %
Drifting Gill Nets

6239
FISHING DAYS



RESULTS

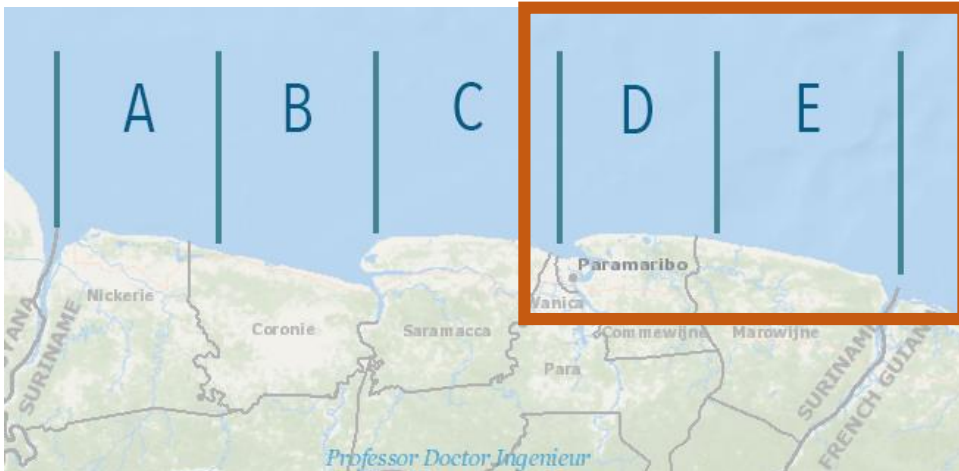
DISTRIBUTION OF MONITORED FISHING TRIPS AND FISHING EFFORT BY MONTH



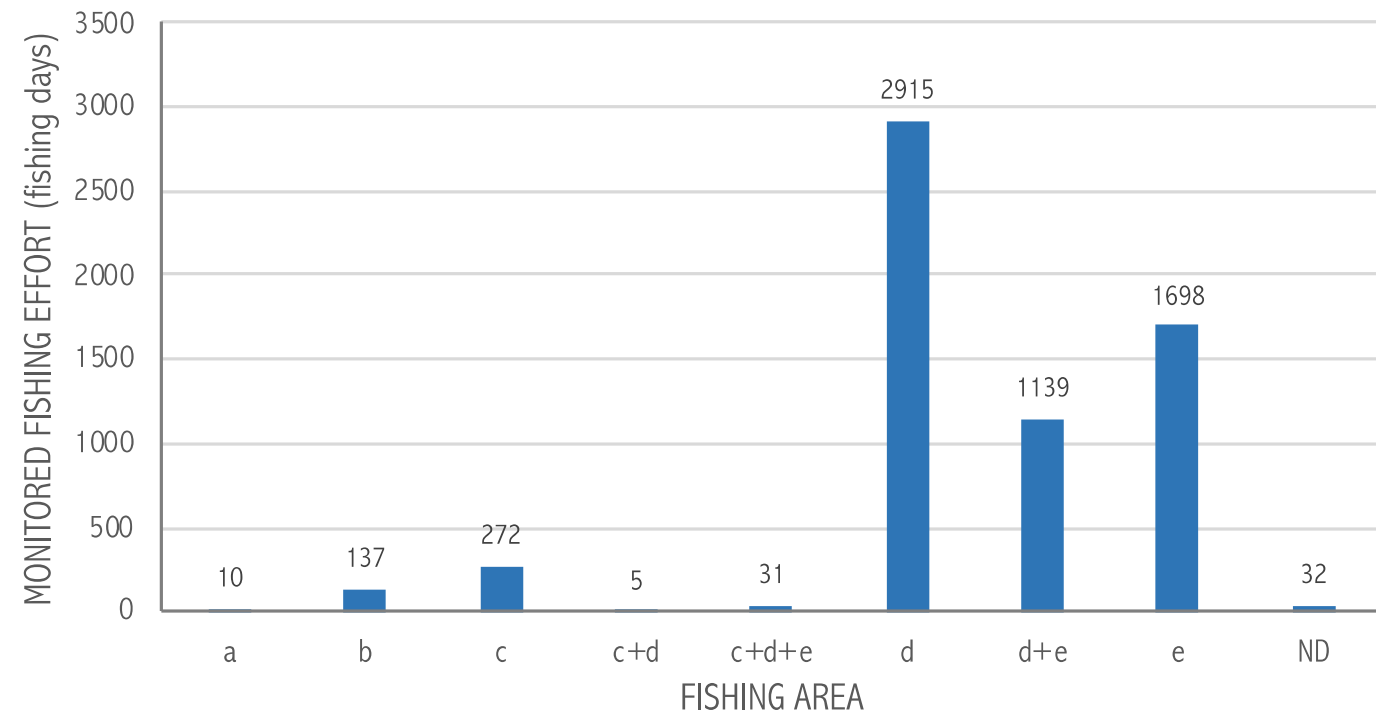
RESULTS

MONITORED FISHING AREA

> 90 %
Location D+E



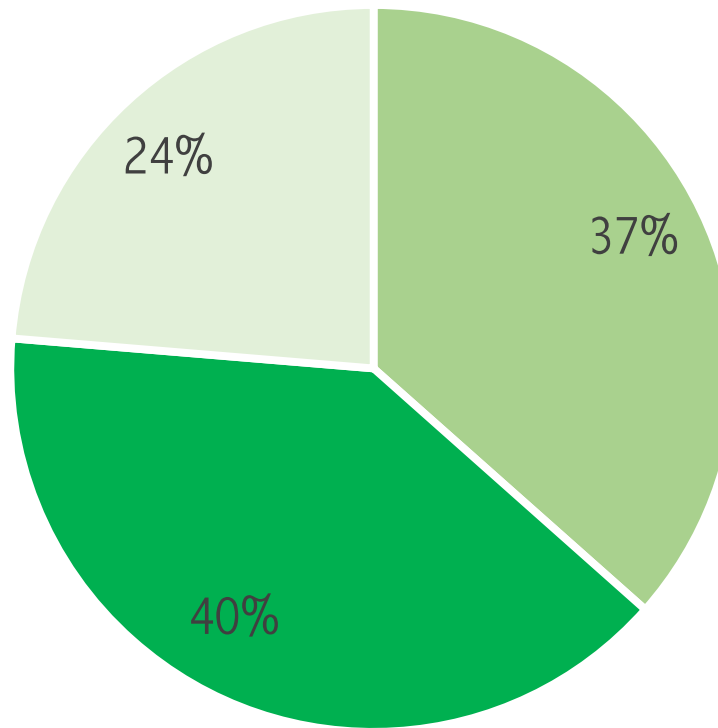
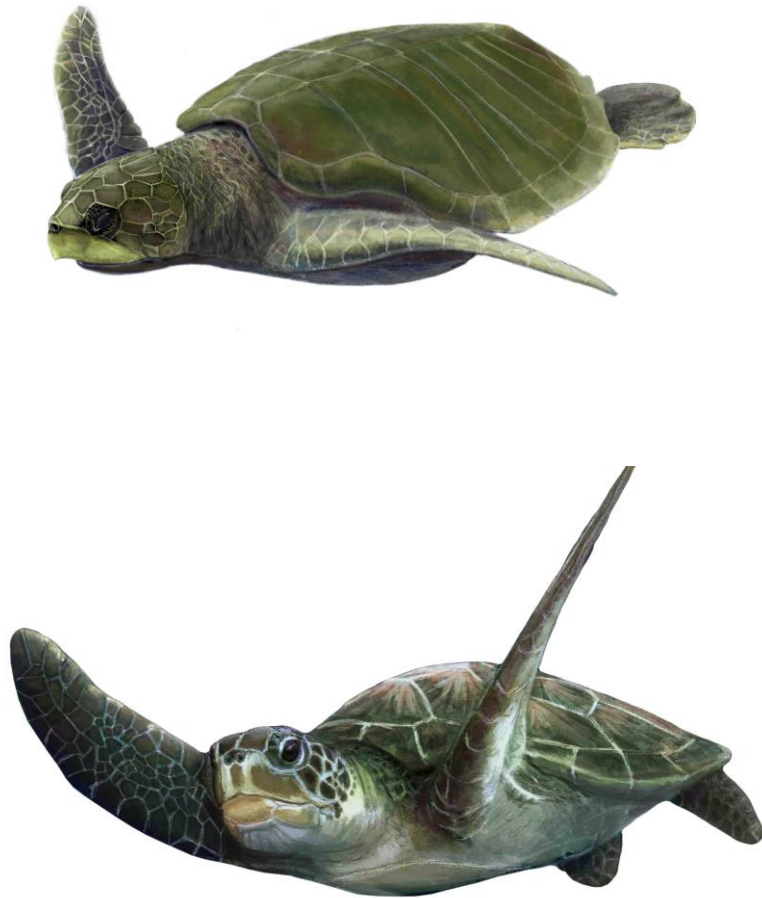
DISTRIBUTION OF THE MONITORED FISHING EFFORT
BY FISHING AREA



RESULTS

SEA TURTLE ENCOUNTERS BY SPECIES

342
SEA TURTLES



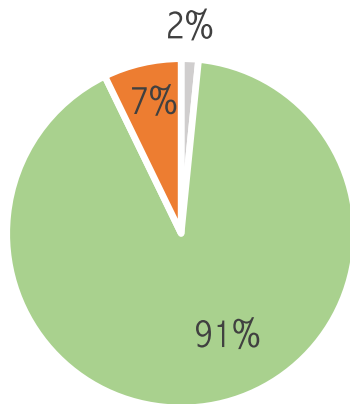
■ LEATHERBACK ■ GREEN TURTLE ■ OLIVE RIDLEY



RESULTS



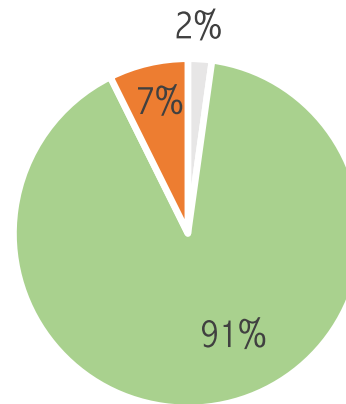
CONDITION -
LEATHERBACK



■ ND ■ alive ■ dead



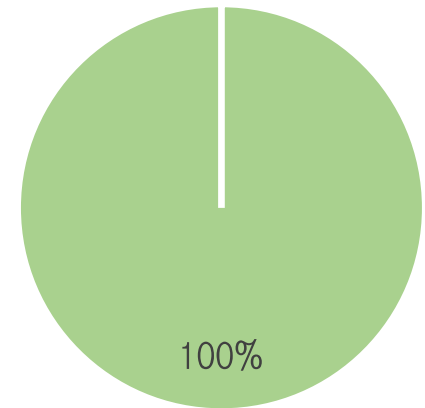
CONDITION - GREEN
TURTLE



■ ND ■ alive ■ dead



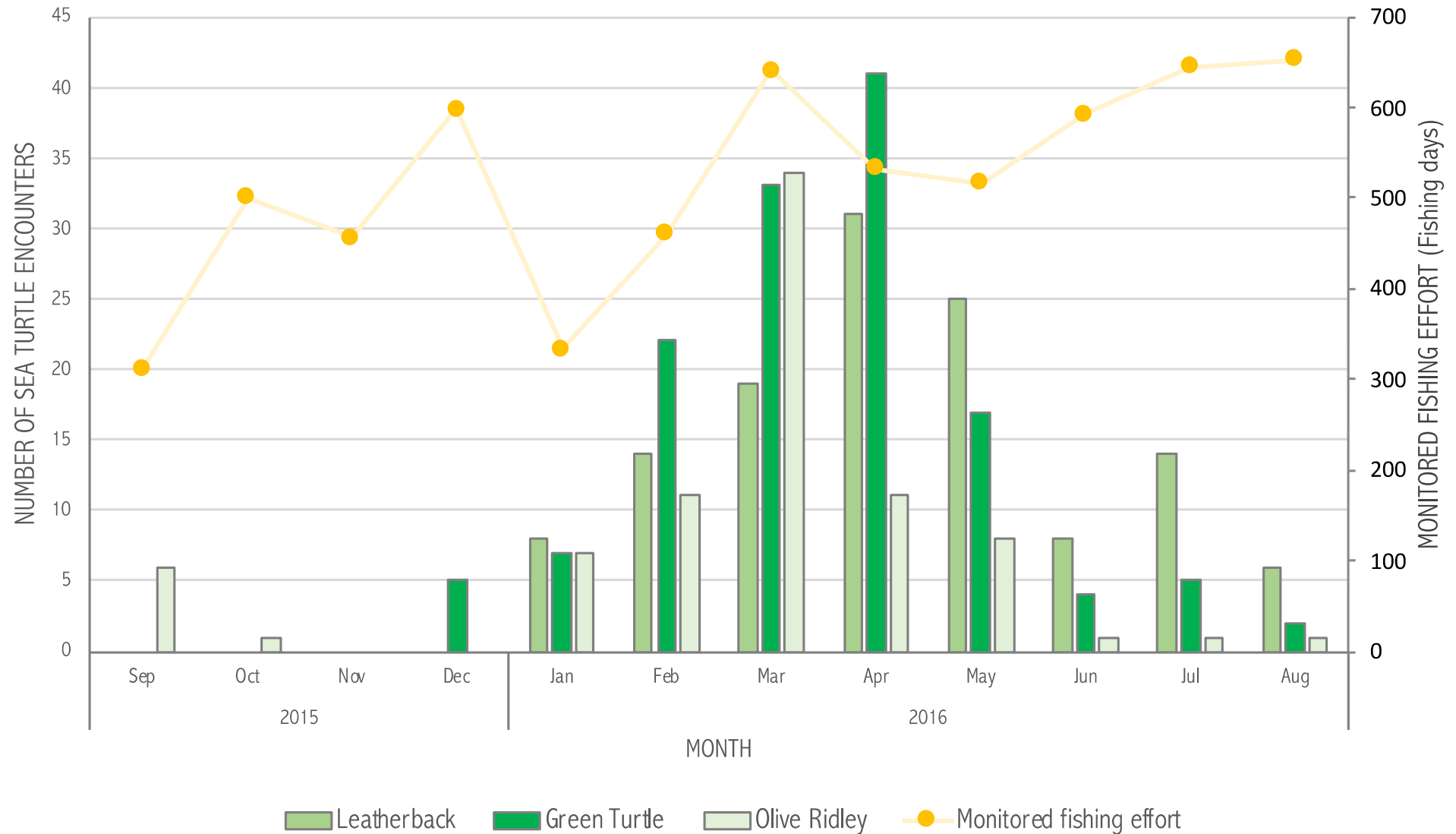
CONDITION - OLIVE RIDLEY



■ alive

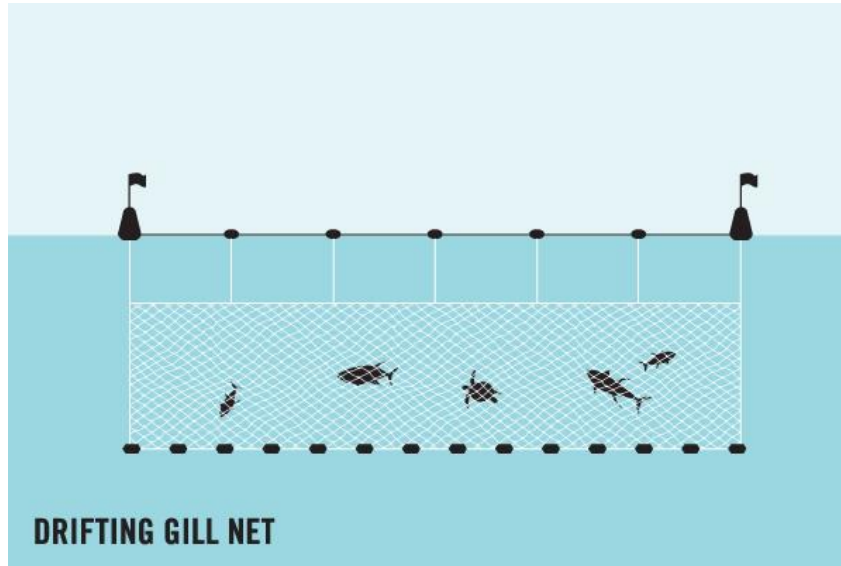
RESULTS

SEA TURTLE ENCOUNTERS & MONITORED FISHING EFFORT



RESULTS

DRIFTING GILL NETS

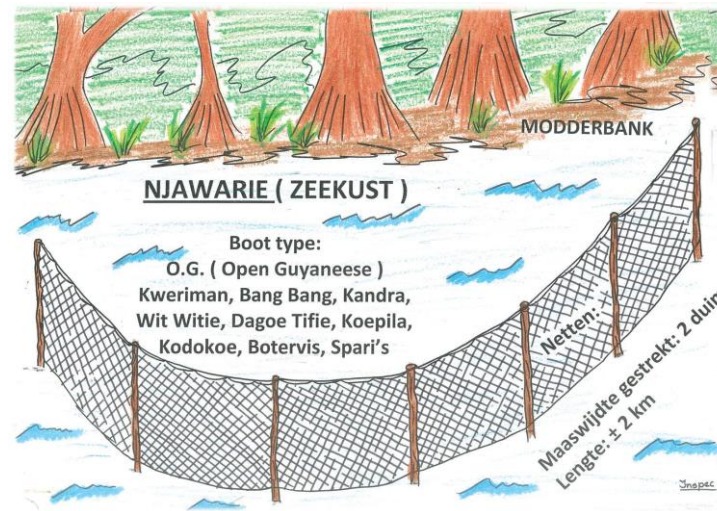


ALL turtle encounters

- SK OG: 0.06 sea turtles/fishing day
- SK GG: 0.06 sea turtles/fishing day
- SKB: 0.08 sea turtles/fishing day

342
SEA TURTLES

LONGLINES NJAWARIE



NO turtle encounters

EXTRAPOLATION OF THE DATA

		# fishing licenses	Estimated fishing effort/license/year	Estimated fishing effort/year	Fishing effort coverage of this study
FISHING TYPE	Gillnet SK – OG Gillnet SK – GG Longlines	340	189	64260	9%
	Gillnet SKB	40	200	8000	3%
	Njawarie	20	189	3780	5%



- IUU FISHING
- RELUCTANCE TO SHARE INFORMATION



UNDERESTIMATION

EXTRAPOLATION OF THE DATA

ARTISANAL GILL NET FISHERY OF
SURINAME

4500

sea turtle
entanglements

250

sea turtle dead by
drowning



TRENDS IN SEA TURTLE BYCATCH



COMPARISON OF SEA TURTLE BYCATCH DATA OVER THE YEARS


- STUDIES AVAILABLE FOR 2006, 2010, 2012 and 2015-2016



LIMITATIONS

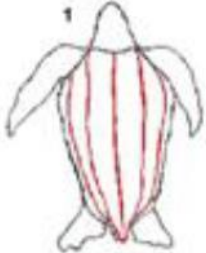
TRENDS IN SEA TURTLE BYCATCH

1



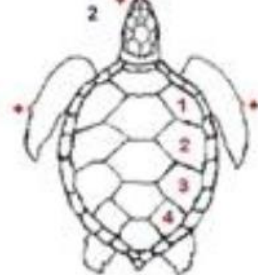
1

Aikanti
Dermochelys coriacea



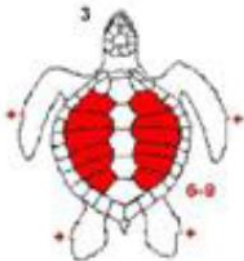
2


Krape
Chelonia mydas



3

Warana
Lepidochelys olivacea





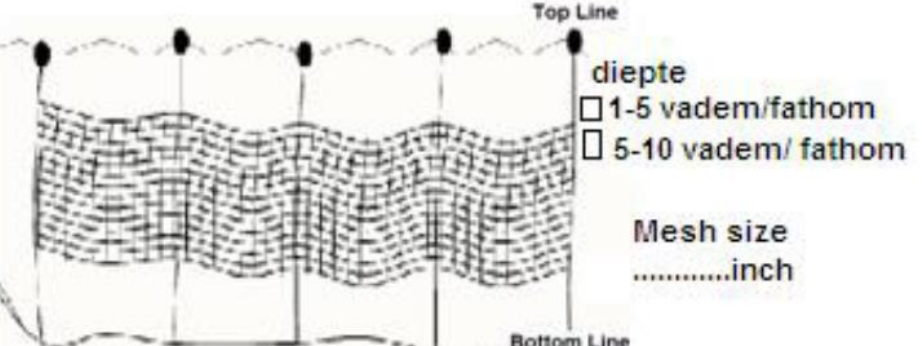
TAG NO

Departure Date

Return Date

Data collector

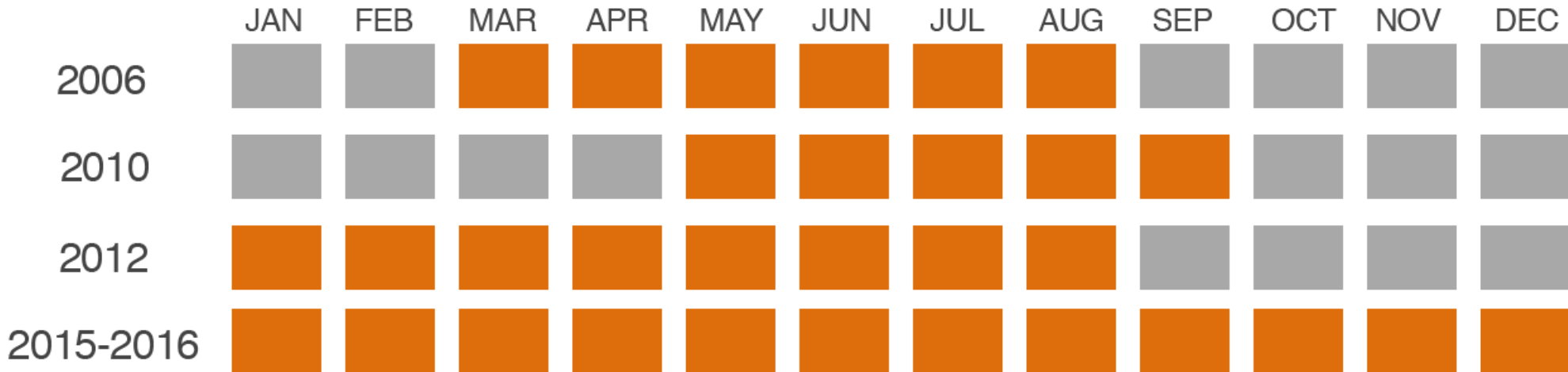
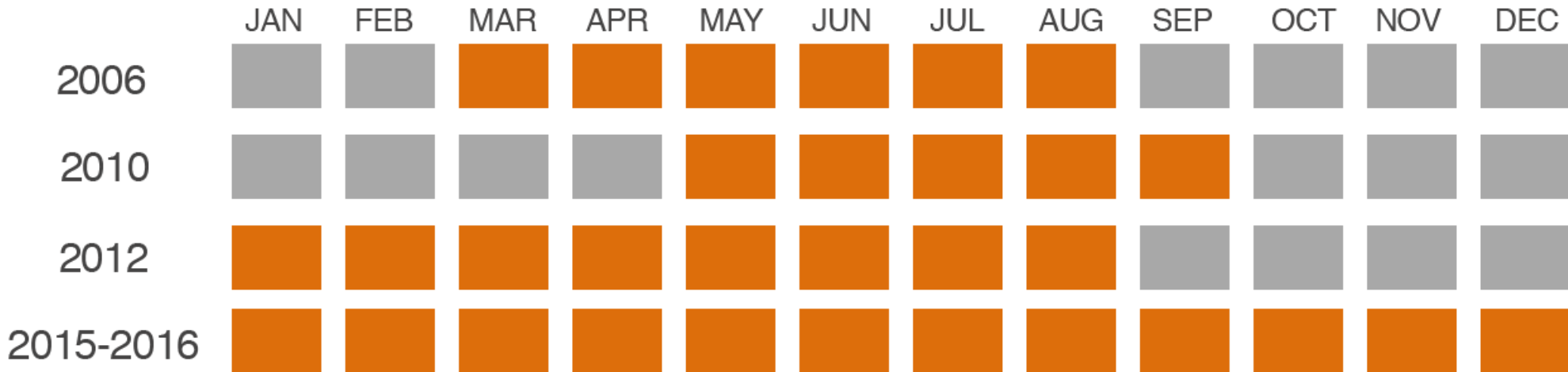
Fishing Date	GPS reading	1			2			3		
		Dead	Alive	M/F	Dead	Alive	M/F	Dead	Alive	M/F
	Lat									
	Long									
	Lat									
	Long									
	Lat									
	Long									
	Lat									
	Long									
	Lat									
	Long									
	Lat									
	Long									
	Lat									
	Long									
	Lat									
	Long									
	Lat									
	Long									



Location of the turtles in the fishing net

Any fisherman who can come up with an idea to lower the catch of turtles will be rewarded.

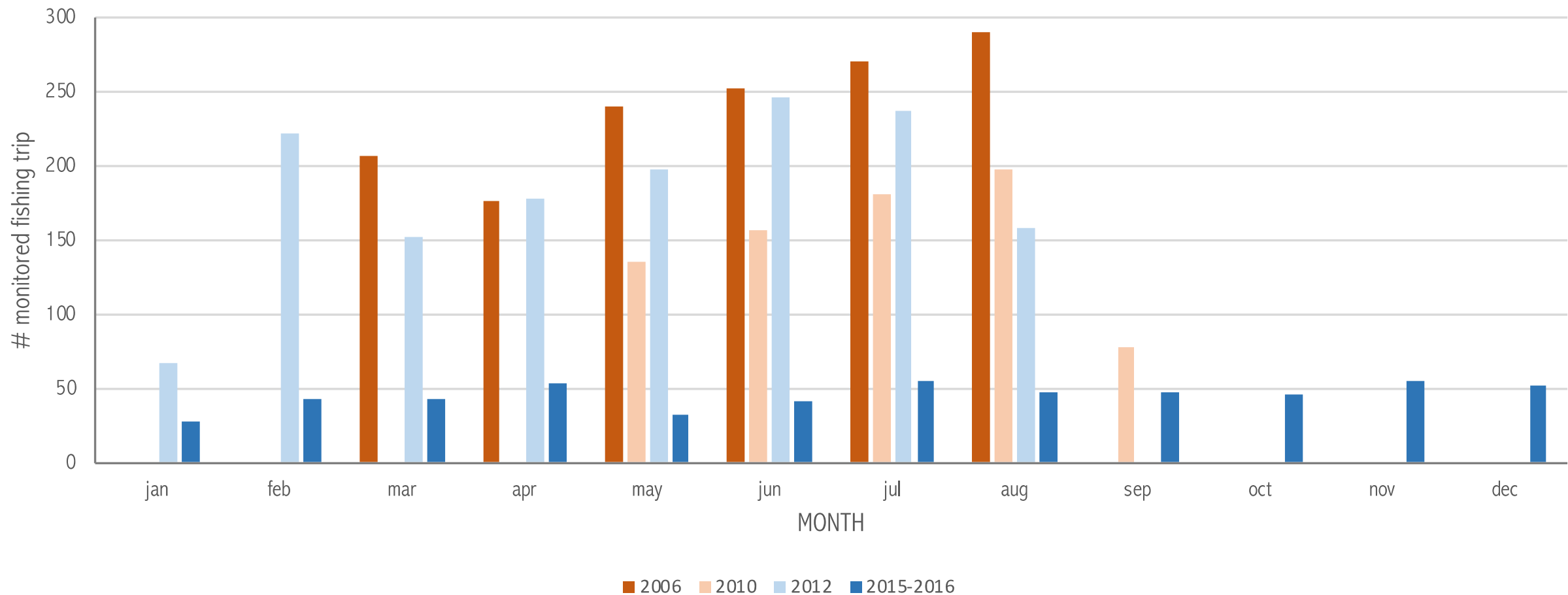
TRENDS IN SEA TURTLE BYCATCH



TRENDS IN SEA TURTLE BYCATCH

3

MONITORED FISHING TRIP



TRENDS IN SEA TURTLE BYCATCH – PRELIMINARY RESULTS

