



SEA TURTLE

OBSERVATION, CONSERVATION
+ PROTECTION PROGRAM

2016 **REPORT**



Centro Ecológico Akumal was formed in 1993 with the vision of Akumal as an ecological destination and as a model for environmental sustainability. CEA's mission is to produce and promote strategies for ecosystem management in Akumal through research, education and outreach, for sustainability in the Mexican Caribbean.

To fulfill its mission of producing and promoting strategies for ecosystem management, one area of focus is the Sea Turtle Protection Program.

This program is operated through a government-authorized permit for the protection, conservation, research and management of sea turtles on four local beaches.

This report outlines the work and accomplishments of the Sea Turtle Observation, Conservation and Protection Program for the 2016 nesting/hatching season.

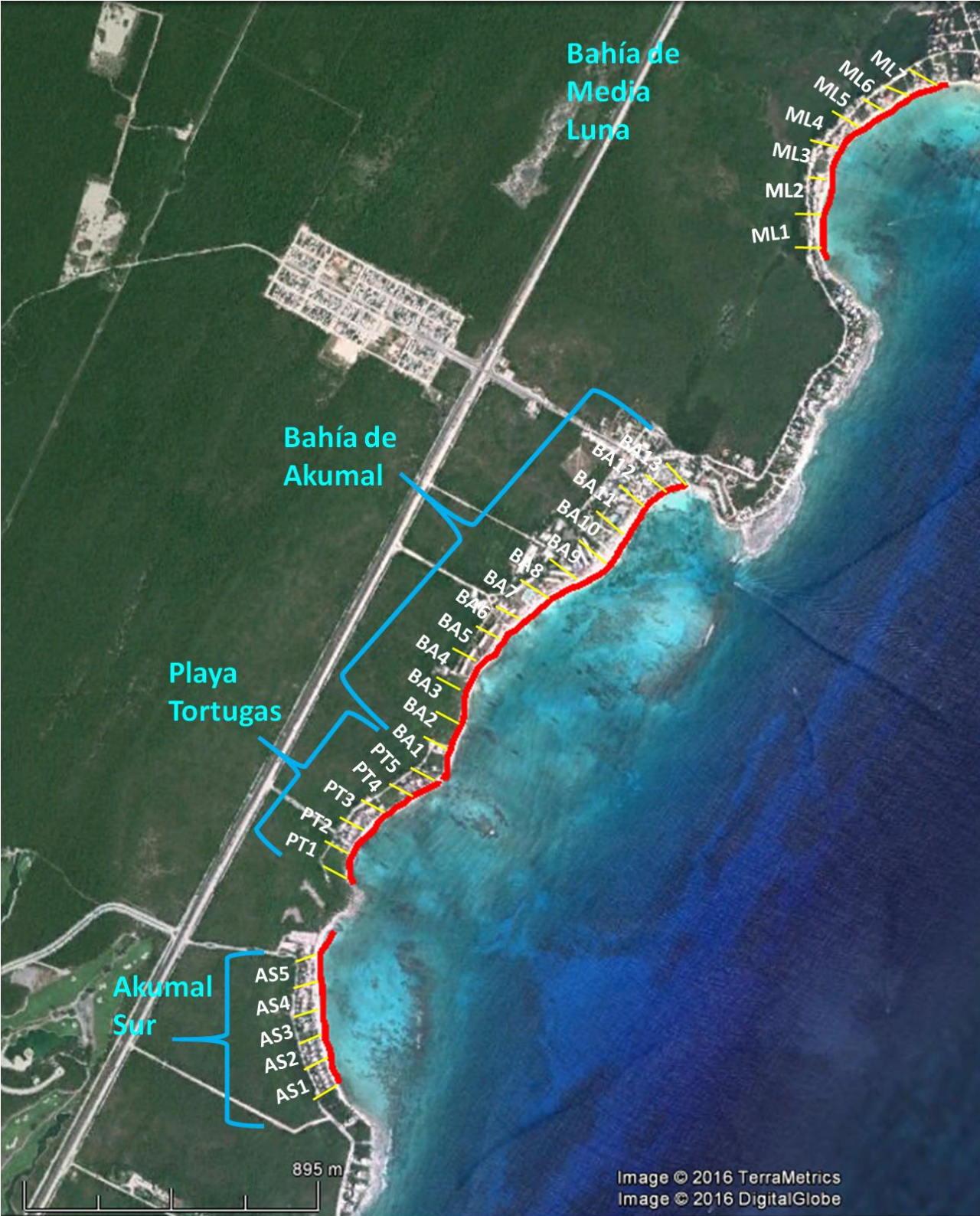
This report is a condensed, summarized and translated version of the official annual report submitted to SEMARNAT. Those interested in viewing the complete report are welcome to drop by the office for review.



AKUMAL: PLACE OF TURTLES

There are **seven** species of turtles in the world, all of which are threatened or endangered. **Four** of the seven species can be found in Quintana Roo, while **three** of the species are found regularly in the bays and/or beaches of Akumal.

Two species of sea turtles: the **loggerhead turtle** (*Caretta caretta*) and the **green turtle** (*Chelonia mydas*) nest on the beaches around Akumal. Year-round you can find juvenile green turtles feeding in the bays and sometimes the **hawksbill turtle** (*Eretmochelys imbricata*) along the reef.



BEACHES + ZONES

CEA is responsible for patrolling and monitoring four nesting beaches in Akumal:

- Bahía de Media Luna / Half Moon Bay
- Bahía Akumal / Akumal Bay
- Playa Tortuga / Jade Bay
- Akumal Sur / South Akumal

Each beach is divided into 100 meter zones to help the **Tortugueros** better monitor and collect data on the beach conditions and nesting activity in each zone.

As seen in the map, Half Moon Bay is made up of seven zones; Akumal Bay, 13 zones; Jade Bay, five zones; and South Akumal, five zones.

Tortuguero is the name given to staff members working with turtles in seasonal turtle camps. It just isn't here in Akumal that this term is used, but up and down the entire coast and throughout turtle areas in Mexico.

794

NESTS ON THE FOUR AKUMAL BEACHES FOR 2016 SEASON

2014

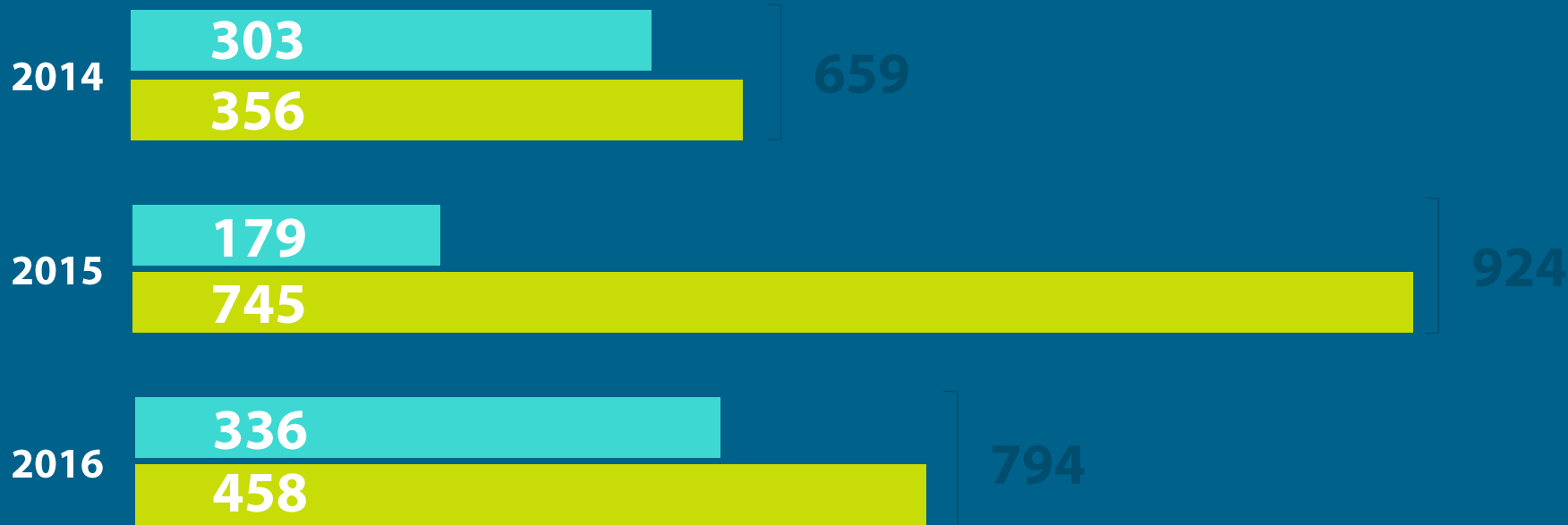
659

2015

924

TOTAL NESTS

loggerheads + greens



Why a difference in the numbers? Why the jump and drop?

The reason for this fluctuation is that the majority of the turtles are on a bi-annual cycle; they will nest every other year or every second year. And during their nesting year, they can lay several nests during the six-month season. It is a logical conclusion, from the data and trends over time, that the population of Greens which nested this 2016 season is smaller than the population that nested in 2015. Fewer nesting mamas equals fewer nests.

And even though the total count for nests for Greens for 2016 are lower than 2015, the numbers have increased since 2014. The

ebb-and-flow cycle that has been ongoing since the '90s continues.

The same wave pattern can also be seen for the Loggerheads. This past season we saw higher numbers than 2015 and an increase from 2014.

We expect, based on the historical data/trends, that 2017 will result in a higher number of nesting Greens than Loggerheads... but time will tell.

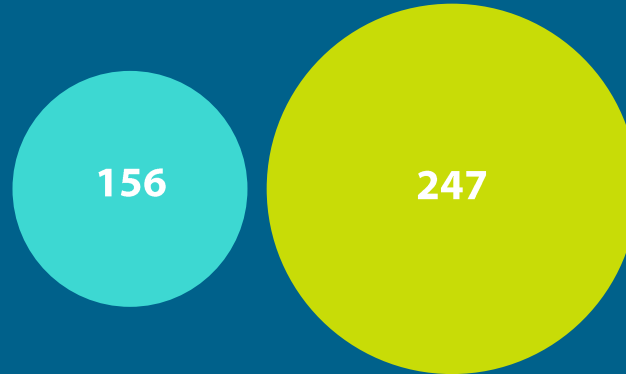
NESTS BY BEACH 2016

loggerheads + greens

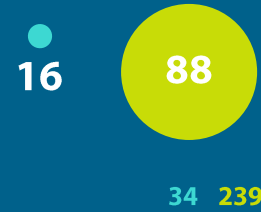
AKUMAL SUR
SOUTH AKUMAL



PLAYA TORTUGA
JADE BAY



BAHIA AKUMAL
AKUMAL BAY



BAHIA MEDIA LUNA
HALF MOON BAY

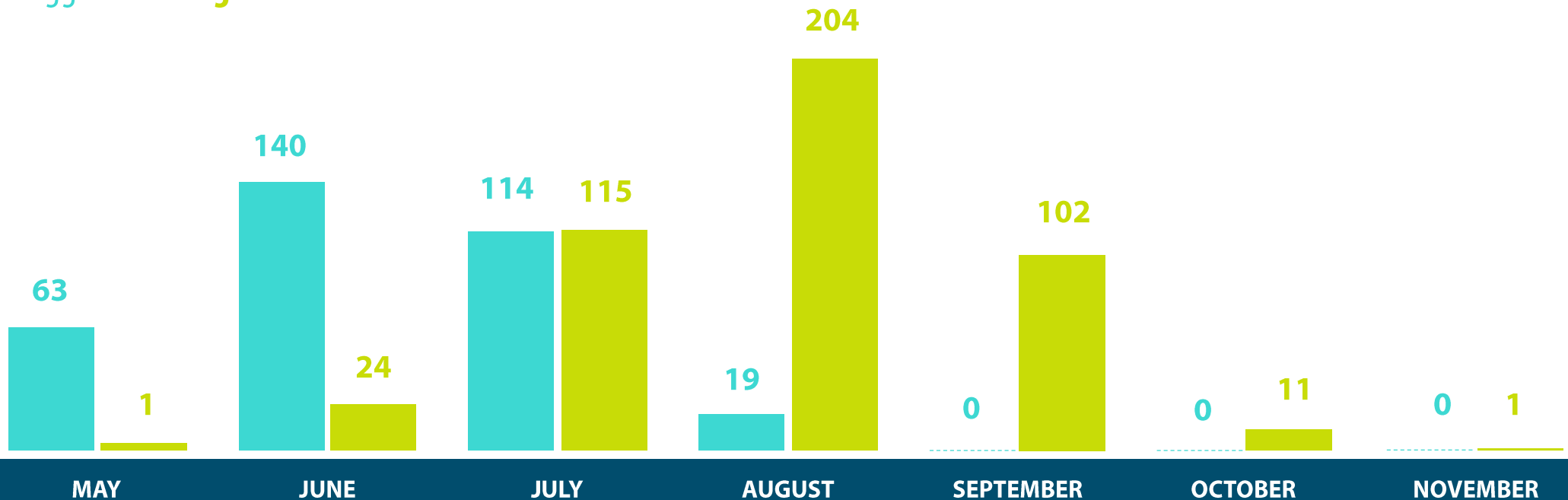


70 395

NUMBERS BELOW ARE FROM 2015

NESTS BY MONTH

loggerheads + greens



OUR WORK

BEACH PATROLS : NESTING

Starting mid-April, CEA's turtle team begins patrolling the beaches first thing in the mornings looking for evidence of nesting activity on the beaches—tracks and nests. When the first nest is laid, the season begins; the beach patrols kick into high gear and the Tortugueros start the night shifts.

During the 9pm to 5am shift, CEA's Tortugueros are out on the beaches. Some of the work they do includes:

Keeping watch on the nesting turtles

Tortugueros will keep a close eye on the nesting turtles, and if needed, guard the female so that she is not disturbed or scared away by others.

Collecting data

Once the female has laid her eggs, the Tortugueros will collect data such as species, tag number, measurement of the her shell and conditions of the beach. All data is then entered into the database to keep tabs of the nests and eggs and tracks the results of the nesting and hatching activities.

Marking nests

Each nest is marked with a stake that includes the beach, the nest number and species. It is also a way for to indicate that the area contains a nest and should not be disturbed.





BEACH PATROLS: HATCHING

When hatching begins, the night shift Tortugueros will keep an eye on the hatching nests to make sure the hatchlings make it to sea and that their path is not disrupted by seaweed, people or lurking predators. However, most often, the additional hatching activities are done by a morning patrol.

Starting at sunrise, the morning patrols go to the beach and look for any hatched nests. Once the Tortuguero finds a hatched nest, they will begin cleaning the nest.

They gently dig into the nest and pull out the broken shells to count how many were hatched. Once in a while, there will still be some hatchlings at the bottom of the nest who would not have made their way out.



TOTAL HATCHLINGS
loggerheads + greens

56,310

AVERAGE SURVIVAL RATE
loggerheads + greens

88%

WE CANNOT DO THIS WITHOUT YOU!

As a not-governmental organization, CEA relies on the generous support from the community, local businesses, donors and visitors to help with the operational costs associated with protecting Akumal's sea turtles—from signage on the beach and nesting stakes to seasonal staff and furnishing them with equipment and uniforms—it all adds up. Thank you to those who donated, adopted a turtle, joined in the Talk/Walk series or provided in-kind donations.

To our Tortugueros—thank you for your work and commitment. It takes a very devoted individual to do the work that you do!

It also takes a crew of volunteers to assist the work of the Tortugueros. To all the volunteers who helped with nest cleaning, beach walking, logistics on the beaches, providing information to tourists and doing the not-so-glamorous behind the scenes work, we thank you for your dedication, time and support.

Gracias!





www.ceakumal.org