

Describing the population structure of *Rhincodon typus* occurring in the waters of Oslob–Cebu, Philippines– between March 2012 and June 2013, during the provisioning interaction hours.

Gonzalo Araujo¹, A. Ponzo¹, D. Geary¹, S. Craven¹, S. Snow¹ & A. Lucey¹.

¹Physalus, Large Marine Vertebrates Project Philippines, Paseo Del Mar Beach Club, Jagna, Bohol, Philippines.
ulilbc@gmail.com

Background: Prior to this study, the aggregation of whale sharks in the waters of Oslob had never been described. Provisioning (Orams, 2002) activities started in late 2011, and systematic data collection in March 2012, attracting over 100,000 tourists in the first year, and is currently the most reliable aggregation of *R. typus* in the Philippines.

Methods: Daily in-water photographic identification was used as a non-invasive means to describe the population throughout the study period. A total of 135 sharks were identified, and IDs were independently matched by three researchers to minimize error. Photogrammetry (Rohner, 2011) was adopted to complement population description.

Results: Daily sightings ranged from 2 to 23 different animals in the interaction area (mean=11.14). A total of 109 males, 15 females and 11 *R. typus* of undetermined sex were described. The size was estimated for 73.3% of the population, with an average of 5.36m ±1.3m. Photogrammetry posed a mean of 5.63m ±0.59m on 14 sharks, 6.75% >than researchers' estimates. Resighting (>1d) was observed in 66.7% of the population. Five individuals were present for >300d (n=443) in the interaction area, with a maximum of 420d. Nine individuals were successfully matched across regional hotspots including Donsol and Southern Leyte.

Conclusion: Despite the presence of animals in Oslob year round and the influence of the provisioning, there appears to be a seasonal influx of animals, with a maximum of 46 different animals present in the month of June 2012 and again in May 2013, contrasting with a monthly average of 28.9. It appears these waters are important to the species and it's paramount to fully investigate the impact of the provisioning on the population of *R. typus* in the Philippines.

Key words: Oslob, Philippines, Population, photogrammetry, photo identification, provisioning.