

Stranding of a juvenile pygmy sperm whale (*Kogia breviceps*) in Utila Island, Honduras, with evidence of plastic ingestion in the Western Caribbean

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The family Kogiidae comprises two extant toothed whales: the pygmy sperm whale (*Kogia breviceps* Blainville, 1838) and the dwarf sperm whale (*Kogia sima* Owen, 1866). Reviewed by McAlpine (2018), *Kogia* spp. are small cetaceans that inhabit deep temperate and tropical waters near continental shelves and slopes worldwide. These species possess a blunt rostrum and a rounded melon, underlain by the spermaceti organ, a specialized fat-filled structure that aids in focusing echolocation clicks for prey detection and navigation in mid- to deep-water environments, including near the seafloor. Uniquely, *Kogia* spp. possess a specialized intestinal sac containing a reddish-brown 'ink-like' fluid stored in the colon, that can be forcibly expelled through the anus when threatened, producing a diffuse cloud likely functioning as a defensive mechanism to confuse predators.

Adults of *Kogia* can reach up to 4.3 m in length and 515 kg in weight (McAlpine, 2018), but are generally smaller (2.7-3.8 m), and dive to 600-1,200 mbsl (Moura et al., 2016). Their recorded diet primarily includes cephalopods (squid, octopus), crustaceans (shrimp, crabs), and fish (Santos et al., 2006; West et al., 2009).

Both *Kogia* species occur broadly throughout the Caribbean, Central, and South America, with records from Belize, Colombia, Cuba, French Guiana, Guadeloupe, Mexico, Puerto Rico, Venezuela, St. Vincent and the Grenadines, and the U.S. Virgin Islands, (Muñoz-Hincapié et al., 1998; Willis & Baird, 1998; Ortega-Argueta

et al., 2005; Bermúdez Villapol et al., 2008; West et al., 2009; Gandilhon, 2012; Moura et al., 2016; Mutis & Polanco, 2019; Bordin et al., 2020; Meza-Yáñez et al., 2021). In the western Caribbean, strandings in Belize, Nicaragua, and the Gulf of Mexico could indicate regular occurrence (Xacur Maiza et al., 1998; Cardona-Maldonado & Mignucci-Giannoni, 1999; Niño-Torres et al., 2015; Ramos et al., 2016; De Weerd et al., 2021). In Honduras, prior stranding records are scarce, with only one adult dwarf sperm whale documented on the mainland (Marineros et al., 2013) and a report of a pregnant dwarf sperm whale on Utila Island (Ramos et al., 2020).

Although reclassified from Data Deficient to Least Concern (Kiszka & Braulik, 2020), the pygmy sperm whale remains one of the least-studied marine mammals. Its apparent rarity largely reflects observational challenges rather than true scarcity, as the species is difficult to locate at sea due to inconspicuous surfacing, prolonged deep-diving behavior, and avoidance of vessels. Moreover, they typically travel solitarily, or rarely in small groups of 2-6 individuals (Baird 2005; Meza-Yáñez et al., 2021), which limits field studies. Consequently, most biological and distributional data derive from strandings rather than *in situ* observations.

Here, we report the stranding of a juvenile pygmy sperm whale in the Eastern Harbor of Utila Island, Honduras (16°05'50.021" N, 86°53'58.789" W; Fig. 1). Utila is the smallest of the major Bay Islands, located at the southern end of the Mesoamerican Barrier Reef System, approximately 35 km north of the Honduran mainland in the Western Caribbean.

At 07:30 h on 19 August 2025, concerned residents first reported a small whale near the shore in Utila's eastern harbor (Fig. 2A). Environmental authorities were immediately mobilized, but the animal could not be relocated. Interviews with one witness indicated the whale had been observed overnight, apparently "resting" beneath a dock. Throughout the morning, multiple sightings were reported of the whale swimming along the shoreline and attempting to strand repeatedly, but seawalls prevented it from beaching. Some residents attempted to assist by supporting the stressed animal in the water (Fig. 2B); the whale swam away several times but later returned close to shore. At approximately 14:00 h, video footage documented the whale colliding with and thrashing against a rocky shoreline, ejecting multiple bursts of dark red liquid akin to ink (YouTube: <https://youtu.be/G8LIMYdtxRI>).

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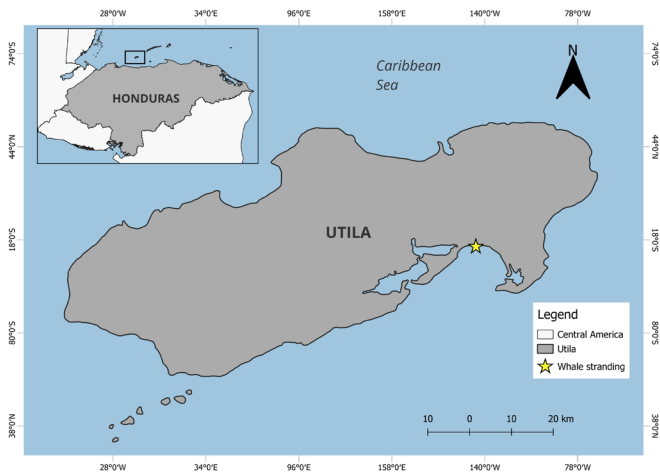


Figure 1. Map of Utila, part of the Bay Islands of Honduras, indicating the stranding site of a pygmy sperm whale (*Kogia breviceps*) in the south coast, Eastern Harbor of the island (yellow star).

The whale sustained extensive lacerations across the head, body, and fins from contact with rocks, resulting in heavy bleeding. At approximately 17:00 h, near its previous encounter sites, the whale stranded violently again and subsequently died, and was classified as Code 2 following Geraci & Lounsbury (2005).

The specimen was photographed and measured following standard protocols (Fig. 3). Assignment to the genus *Kogia* was confirmed by diagnostic features including a blunt rostrum, characteristic body coloration and size, and a whitish, bracket-shaped ‘false gill’ mark between the eye and flipper.

The specimen was identified as *K. breviceps* based on diagnostic morphology and morphometrics. The small, falcate dorsal fin, its relative position, and absence of maxillary teeth distinguished it from an adult dwarf sperm whale previously recorded on Utila (Ramos et al., 2020). *K. breviceps* is also differentiated from *K. sima* by a snout-to-anterior dorsal fin distance exceeding 50% of total body length, a dorsal fin height < 5% of total length, and a

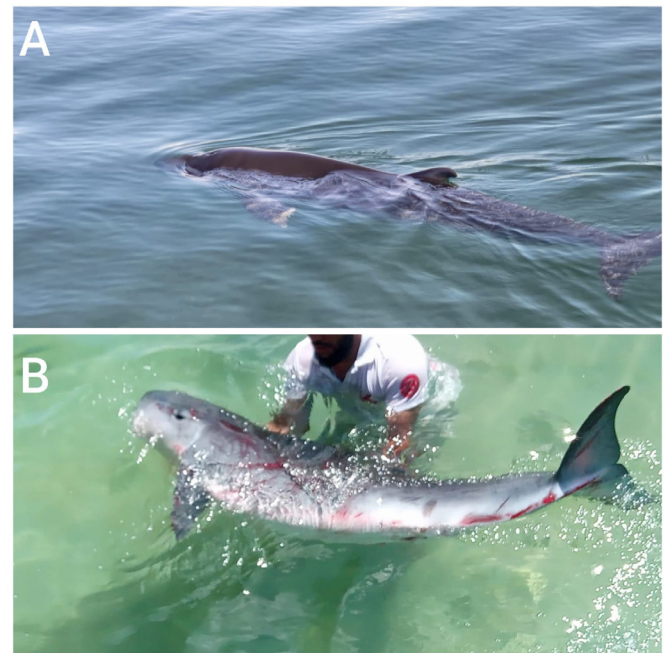


Figure 2. Events that occurred prior to the death of the specimen: A) Pygmy sperm whale (*Kogia breviceps*) swimming close to the shoreline, Utila, Honduras, 19 August 2025. B) The whale, showing signs of exhaustion and injury from repeated stranding events, received temporary assistance from a local resident.

snout-to-blowhole distance of 10.4-12.8% of total length (Handley, 1966; Ross, 1979). In the Utila specimen, these values were 56.7%, 5.06%, and 12.9%, respectively (Table 1).

Total body length was 1.78 m, larger than neonates (~1.3 m) but smaller than a typical adult pygmy sperm whale (up to 4.3 m), indicating a juvenile past weaning (~12 months) (McAlpine, 2018). Sex was determined as female based on the relative position of the genital opening and anus, and the presence of an immature uterus. Attainment of sexual maturity in female pygmy sperm whales is known to occur at five years of age and 2.62 m total length (Plön, 2004).

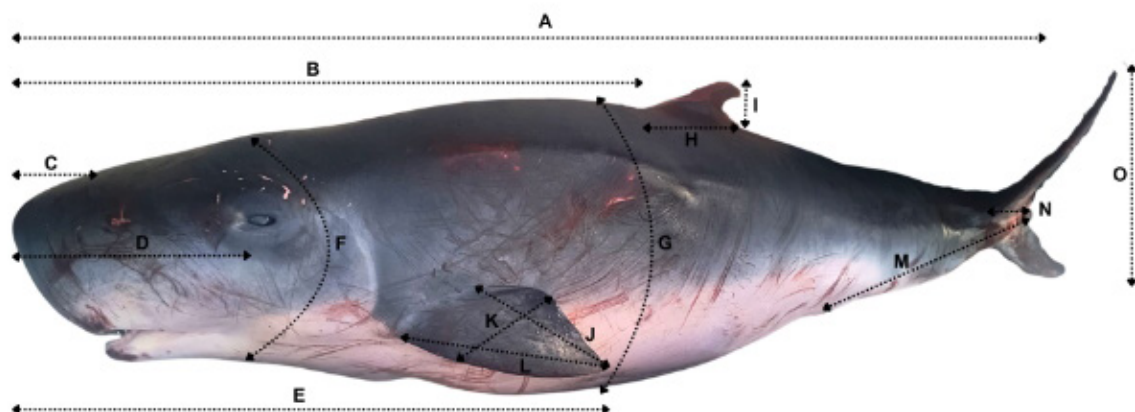


Figure 3. Photograph of the deceased *K. breviceps* showing overall appearance post-stranding, with body abrasions visible. Approximate locations of morphological measurements are indicated as follows: (A) total body length; (B) rostrum tip to anterior dorsal fin; (C) rostrum tip to blowhole; (D) rostrum tip to eye; (E) rostrum tip to right pectoral fin tip; (F) head circumference; (G) maximum body circumference; (H) dorsal fin base width; (I) dorsal fin height; (J) internal length of right pectoral fin; (K) maximum width of right pectoral fin; (L) external length of right pectoral fin; (M) distance from fluke notch to anus; (N) fluke depth; (O) fluke tip-to-tip length.

Table 1. Body size measurements of a juvenile pygmy sperm whale (*Kogia breviceps*) found stranded on 19 August 2025 in Eastern Harbor, Utila, Bay Islands (please see Fig. 3). Values given in parenthesis correspond to a percentage of the given measurement in relation to total body length.

Morphological measurement	Size (in cm)
Total body length	178
Circumference of abdomen	101
Circumference of head	84
Distance from rostrum tip to eye	31
Distance from rostrum tip to blowhole	23 (12.9%)
Distance from rostrum tip to right fin tip	74
Distance from notch of flukes to anus	43
Internal length of right pectoral flipper	25
Maximum width of right pectoral flipper	12
External length of right pectoral flipper	31
Distance from rostrum tip to anterior dorsal fin	101 (56.7%)
Width at base of dorsal fin	14
Height of dorsal fin	9 (5.06%)
Fluke width, tip to tip	52
Fluke depth	21
Number of mandibular teeth	13 (26 total)
Number of maxillary teeth	0

Based on dental and cranial morphometrics, the specimen exhibited 13 mandibular teeth per row (26 total), lacked maxillary teeth—which occurs occasionally in *K. breviceps* (Bloodworth & Odell, 2008)—and had a proportionally long mandibular symphysis with rami articulating over an extended area (Fig. 4A-B). Osteological elements of the right pectoral flipper were carefully examined. The proposed phalangeal formula for this specimen is I 1, II 8, III 6, IV 4, V 2 = total 21 (Fig. 4C). This count falls between neonate (I 1, II 6, III 4, IV 2, V 1 = total 14) and adult *K. breviceps* counts ranging I 1–2, II 7–8, III 6–7, IV 6–6, V 3–5 = total 23–28 (reviewed in Bennati-Madureira et al., 2025). Phalangeal counts in *Kogia* are known to be highly variable, and the small size and fragility of these bones often result in loss or misplacement during decomposition, introducing potential error without radiographs.

Externally, the whale’s body was mostly intact, aside from the major skin abrasions acquired during stranding. A single minor circular scar was present along the body side, consistent with previous attacks by cookie-cutter sharks (*Isistius* spp.), a type of injury that has also been documented on several dolphin species in the Bay Islands and wider Mesoamerican Reef System (Castelblanco-Martínez et al., 2022) and South America (Bermúdez Villapol et al., 2008). No evidence of predation or fisheries interactions was detected.

A veterinary necropsy following Pugliares et al. (2007) was performed *in situ* approximately one hour after death to assess the animal’s health and cause of death. The right pectoral fin

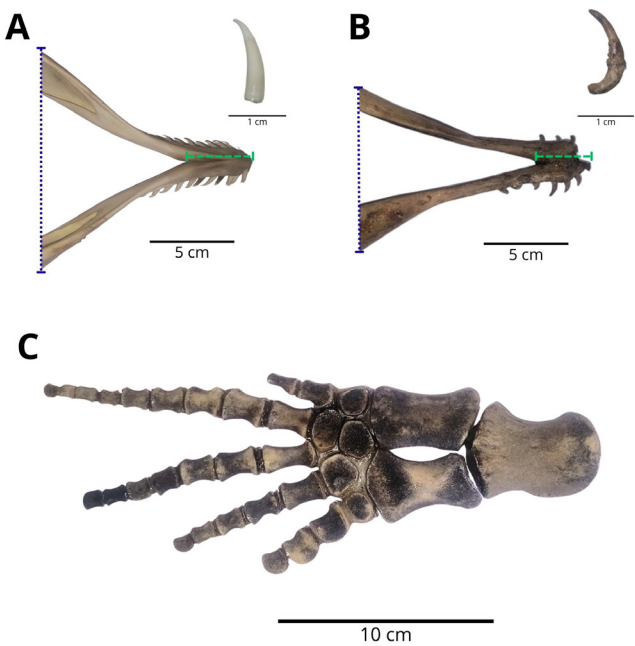


Figure 4. Visual differences in the mandibles and teeth of *Kogia* spp. specimens on Utila and pectoral fin of *K. breviceps*. A) Juvenile *Kogia breviceps*, with 13 pairs of teeth. B) Adult *Kogia sima*, with incomplete tooth count (in Ramos et al., 2020). In *K. breviceps*, the bicondylar breadth (blue line) is greater than in *K. sima*, while the mandibular symphysis (green line) is proportionally longer. C) Proposed arrangement of *K. breviceps* right pectoral fin and phalangeal count.

and mandible were removed and analysed as part of this study and deposited at the museum of Kanahau Wildlife Conservation Organization on Utila. The carcass was buried at the Bay Islands Conservation Association (BICA), Utila, and is pending future excavation or research.

Upon necropsy liver, kidneys, lungs, and heart appeared grossly normal. In contrast, the stomach presented a nematode infestation, with hundreds of live parasites, measuring 20–45 mm. The significant number of parasites precluded an accurate count. Based on diagnostic morphological features (Fig. 5; Hernández-Olascoaga et al., 2023) under light microscopy, sampled individuals were identified as genus *Anisakis*. The stomach was almost empty, containing only the shells of three digested, large, bright red lophogastrid crustaceans (*Gnathopausia ingens*, ~12–20 cm in length), and a piece of a white high-density polyethylene (HDPE) plastic bag (~30 × 15 cm; Fig. 6).

The intestines contained no visible prey remains, while the segment leading into the distal colon was obstipated with a firm, black fecal mass that was difficult to remove. The distal colon remained distended containing several liters of viscous, foul-smelling, dark reddish-brown fluid, which leaked post-mortem, despite expelling fecal fluids during stranding attempts. In *Kogia*, feces are typically watery, whereas the presence of formed material in the upper intestine suggests constipation, a frequent diagnosis in stranded individuals due to inadequate fluid intake (Manire et al., 2004). Although the cause of death could not be determined in this case, the presence of a plastic bag in the stomach is a relevant finding. However, without evidence of direct gastrointestinal blockage, it can only be noted as a potential but unconfirmed contributing factor to the animal’s condition

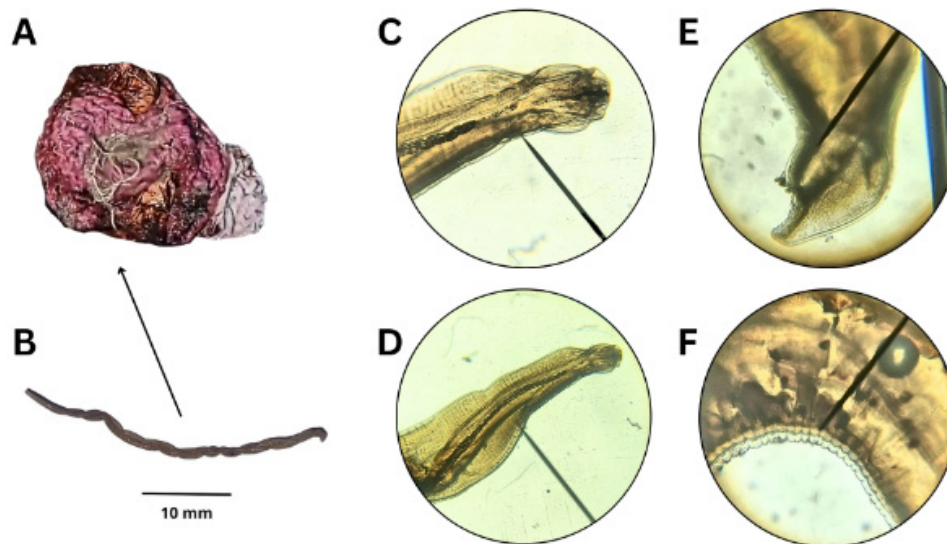


Figure 5. Endoparasites found during the necropsy of the stranded pygmy sperm whale (*Kogia breviceps*): A) Image showing gross pathology of stomach with visible *Anisakis* spp. nematode infestation. B) *Anisakis* sp. presented a purplish to ivory white colour in life – 10 mm scale bar. C-D) *Anisakis* sp. under a light microscope, anterior end at 100x and 40x magnification. E) Caudal end, 100x; F. Cuticle, 100x

or stranding behaviour.

This case provided a rare insight into the behaviour of *K. breviceps* leading up to a stranding event. Live strandings are infrequently observed, as most events occur in remote locations where animals are more likely to be discovered post-mortem. Of the identification methods we applied, we consider the percentage ratio of snout length (tip to blowhole) to body length as the most useful at distinguishing stranded *Kogia* spp. In *K. breviceps* it is usually more than 10% of the total body length (Ross, 1984), which is a good character for species identification as there is no overlap with *K. sima*; unlike the other measures, where some caution should be applied (Ross, 1979; Plön, 2004).

In the Americas and Caribbean, *K. breviceps* and *K. sima* are known as definitive hosts for specific anisakid parasites, which are present in almost every stranded individual (Deardorff & Overstreet, 1981; Manire et al., 2004). *Anisakis*, *Pseudoterranova*, *Crassicauda* and other genera have been previously reported in *K. breviceps* (Solís et al., 2006; Shamsi et al., 2019; Hernández-Olascoaga et al., 2023). Key species include *Anisakis brevispiculata*, *A. simplex* (*sensu stricto*), *A. paggiae*, and *Pseudoterranova ceticola* (Solís et al., 2006; Colón-Llavina et al., 2009; Cavallero et al., 2011). These parasites occur mainly in the stomach and are linked to the whales' diet of squid. *Anisakis* parasite loads commonly number in the hundreds and thousands (see Hernández-Olascoaga et al., 2023). Molecular studies have clarified identifications and expanded geographic records, highlighting the need for continued monitoring of anisakid diversity in kogiids. More extensive sampling in our study may have identified the presence of multiple parasite species and allowed for a more accurate quantification of overall parasitic loads.

Like many cetaceans, *Kogia* spp. are vulnerable to ingesting marine debris, relying heavily on echolocation instead of visual cues to locate prey, primarily cephalopods, crustaceans, and fish. In the Utila specimen, stomach contents included deep-sea, shrimp-like lophogastrids identified as the giant red mysid

G. ingens, a pantropical species typically found at 600–1,500 m depth (Meland & Aas, 2013). This crustacean has been previously reported in stranded *Kogia* individuals from the Caribbean (Cardona-Maldonado & Mignucci-Giannoni, 1999), reaffirming their importance as prey items. However, floating plastics at depth can be mistaken for prey and ingested, often causing injury or mortality. *Kogia* worldwide have been documented with plastic and other debris obstructing their digestive tracts (Barros et al., 1990; Sadove & Morreale, 1990; Walker & Coe, 1990; Tarpley & Marwitz, 1993; Stamper et al., 2006; Fernández et al., 2009). In most cases, plastic bags were the primary anthropogenic item, and in at least two cases they caused fatal gastrointestinal obstruction (Tarpley & Marwitz, 1993; Stamper et al., 2006; Brentano & Petry, 2020).

The Caribbean is among the most plastic-contaminated seas globally (Diez et al., 2019). HDPE plastic bags are strong, flexible, impermeable, and non-biodegradable, allowing them to pose



Figure 6. HDPE plastic bag retrieved from within the stomach of pygmy sperm whale (*K. breviceps*).

lethal threats and persist in the marine ecosystems for centuries (Lim, 2023). In the Honduran Caribbean, the death of a fin whale (*Balaenoptera physalus*) in January 2019, locally known as 'Gran Berta,' was previously attributed to plastic ingestion (Proceso Digital, 2019). Moreover, a small piece of plastic was noted in the stomach contents of a stranded pilot whale (*Globicephala macrorhynchus*) on Utila (Fox, 2008), and the death of a melon-headed whale (*Peponocephala electra*) in Honduras was recently linked to asphyxiation with a plastic bag (Vallejo-Ham et al. 2026). The present case represents the third documented instance of plastic ingestion associated with a cetacean stranding in Honduras, further underscoring the impacts of marine debris on local cetaceans. While cetacean stranding events on Utila have been increasingly reported (Ramos et al., 2020; Brown et al., 2024; Murcia et al., 2024), most events in Honduras remain undocumented. Indeed, Honduras has been identified as the Central American country with the fewest advances in cetacean research during 2011–2021 (Martínez et al., 2022). Stranding attendance by specialists, along with comprehensive necropsies are rarely feasible, suggesting that stranding and mortality rates of some species in Honduras, and the prevalence of plastic ingestion may be underestimated. Marine debris may therefore pose a more significant threat to cetaceans in the western Caribbean than currently recognized.

Our observation represents the first report of a pygmy sperm whale stranding on the Bay Islands and, to our knowledge, the first confirmed stranding record in Honduras. Our study highlights that simple morphological differences can be used as effective methods to distinguish stranded and skeletal *Kogia* spp. specimens in future events. Such records are crucial for understanding the distribution, morphology, diet, and overall health of *K. breviceps* populations, particularly in the Western Caribbean where systematic studies are lacking.

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References

Baird, R. W. (2005). Sightings of dwarf (*Kogia sima*) and pygmy (*K. breviceps*) sperm whales from the main Hawaiian Islands. *Pacific Science*, 59(3), 461–466. <https://muse.jhu.edu/article/182411/pdf>

Barros, N. B., Odell, D. K., & Patton, G. W. (1990). Ingestion of plastic debris by stranded marine mammals from Florida. In R. S. Shomura & M. L. Godfrey (Eds.), *Proceedings of the*

Second International Conference on Marine Debris: 2-7 April 1989, Honolulu, Hawaii (NOAA-TM-NMFS-SWFSC-154, Vol. 1, p. 746). US Department of Commerce. noaa.gov

Bennati-Madureira, L., Gomes, G. L., Daros, K. A. C., & Casas, A. L. D. S. (2025). Anatomical description of a pygmy sperm whale, *Kogia breviceps* (Cetacea: Kogiidae), pre-term calf using CT scan and 3D reconstructions. *Anatomical Record*, 308(5), 1305–1318. <https://doi.org/10.1002/ar.25573>

Bermúdez Villapol, L. A. B., Sayegh, A., & León, T. (2008). Notes on the confirmation of the dwarf sperm whale *Kogia sima* Owen, 1866 (Cetacea: Kogiidae) on Venezuelan coasts. *Revista Científica UDO Agrícola*, 8(1), 154–162.

Bloodworth, B. E., & Odell, D. K. (2008). *Kogia breviceps* (Cetacea: Kogiidae). *Mammalian Species*, 819, 1–12. <https://doi.org/10.1644/819.1>

Bordin, A., Willy, D., Pineau, K., Tribot, J., Segers, M., Simon, J., ... & de Thoisy, B. (2020). Stranding of pygmy sperm whale, *Kogia breviceps* (de Blainville, 1838), in eastern French Guiana. *Latin American Journal of Aquatic Mammals*, 15(1), 30–32. <https://doi.org/10.5597/lajam00259>

Brentano, R., & Petry, M. V. (2020). Marine debris ingestion and human impacts on the pygmy sperm whale (*Kogia breviceps*) in southern Brazil. *Marine Pollution Bulletin*, 150, 110595. <https://doi.org/10.1016/j.marpolbul.2019.110595>

Brown, T. W., Murcia, F. V., Garcia, A., & Ramos, E. A. (2024). Spinner dolphin with evidence of shark interaction on Utila Island, Honduras. *Caribbean Journal of Science*, 54(1), 32–35. <https://doi.org/10.18475/cjos.v54i1.a5>

Canto, J., Toro, F., Borroni, C., Yáñez, J., Huidobro, C., & Rivas, P. (2015). Nuevo registro de *Kogia sima* (Cetacea: Kogiidae) con la descripción del aparato hiolingual y una revisión de los registros en las aguas de Chile. *Boletín Museo Nacional de Historia Natural*, 64, 133–141. <https://doi.org/10.54830/bmnhn.v64.2015.115>

Cardona-Maldonado, M. A., & Mignucci-Giannoni, A. A. (1999). Pygmy and dwarf sperm whales in Puerto Rico and the Virgin Islands, with a review of *Kogia* in the Caribbean. *Caribbean Journal of Science*, 35(1–2), 29–37.

Castelblanco-Martínez, D. N., Ramos, E. A., Kiszka, J. J., Blanco-Parra, M. P., Padilla-Saldivar, J. A., García, J., & Niño-Torres, C. A. (2022). Spatial patterns of shark-inflicted injuries on coastal bottlenose dolphins in the Mesoamerican Reef System. *Studies on Neotropical Fauna and Environment*, 57(3), 332–338. <https://doi.org/10.1080/01650521.2021.1877391>

Cavallero, S., Nadler, S. A., Paggi, L., Barros, N. B., & D'Amelio, S. (2011). Molecular characterization and phylogeny of anisakid nematodes from cetaceans from southeastern Atlantic coasts of USA, Gulf of Mexico, and Caribbean Sea. *Parasitology Research*, 108(4), 781–792. <https://doi.org/10.1007/s00436-010-2226-y>

Colón-Llavina, M. M., Mignucci-Giannoni, A. A., Mattiucci, S., Paoletti, M., & Nascetti, G. (2009). Additional records of metazoan parasites from Caribbean marine mammals, including genetically identified anisakid nematodes. *Caribbean Journal of Science*, 45(1), 73–93. <https://doi.org/10.1007/s00436-009-1544-4>

Deardorff, T. L., & Overstreet, R. M. (1981). *Terranova ceticola* n.

- sp. (Nematoda: Anisakidae) from the dwarf sperm whale; *Kogia simus* (Owen), in the Gulf of Mexico. *Systematic Parasitology*, 3(1), 25-28. <https://doi.org/10.1007/BF00012236>
- De Weerd, J., Ramos, E. A., Pouplard, E., Kochzius, M., & Clapham, P. (2021). Cetacean strandings along the Pacific and Caribbean coasts of Nicaragua from 2014 to 2021. *Marine Biodiversity Records*, 14(1), 13. <https://doi.org/10.1186/s41200-021-00209-5>
- Diez, S. M., Patil, P. G., Morton, J., Rodriguez, D. J., Vanzella, A., Robin, D. V., Maes, T. & Corbin, C. (2019). Marine pollution in the Caribbean: not a minute to waste. World Bank Group, Washington, D. C. <https://bvearmb.do/handle/123456789/1540>
- Fernández, R., Santos, M. B., Carrillo, M., Tejedor, M., & Pierce, G. J. (2009). Stomach contents of cetaceans stranded in the Canary Islands 1996–2006. *Journal of the Marine Biological Association of the United Kingdom*, 89(5), 873–883. <https://doi.org/10.1017/S0025315409000290>
- Fox, S. (2008). *Update on stranding of pilot whales in Utila, Honduras*. <https://lists.uvic.ca/pipermail/marmam/2008-October/001971.html>
- Gandilhon, N. (2012). *Contribution au recensement des cétacés dans l'archipel de Guadeloupe* [Doctoral dissertation, Université des Antilles]. <https://hal.science/tel-03910549v1>
- Geraci, J. R., & Lounsbury, V. J. (2005). *Marine Mammals Ashore: A Field Guide for Strandings*, 2ed. National Aquarium in Baltimore.
- Handley, G. O. J. (1966). A synopsis of the genus *Kogia* (pygmy sperm whales). In K. S. Norris (ed.) *Whales, Dolphins and Porpoises* (pp. 62-69). University of California Press.
- Hernández-Olascoaga, A., Guillén-Hernández, S., & Díaz-Gamboa, R. E. (2023). Parasites of pygmy sperm whales (*Kogia breviceps*) stranded in the Southern Gulf of Mexico. *Aquatic Mammals*, 49(2) <https://doi.org/10.1578/AM.49.2.2023.177>
- Kiszka, J., & Braulik, G. (2020). *Kogia breviceps*. The IUCN Red List of Threatened Species 2020: e.T11047A50358334. <https://doi.org/10.2305/IUCN.UK.2020-2.RLTS.T11047A50358334.en>
- Lim, M. (2023). Comparison of plastics [sic] bags and it's [sic] most common alternatives. *The National High School Journal of Science*, 2023, 1-9. <https://nhsjs.com/wp-content/uploads/2024/03/Comparison-of-Plastics-Bags-and-Its-Most-Common-Alternatives.pdf>
- Manire, C. A., Rhinehart, H. L., Barros, N. B., Byrd, L., & Cunningham-Smith, P. (2004). An approach to the rehabilitation of *Kogia* spp. *Aquatic Mammals*, 30(2), 257-270. <https://doi.org/10.1578/AM.30.2.2004.257>
- Marineros, L., Mondragón, M. E., & Matamoros, W. (2013). First report of *Kogia sima* (Cetacea: Kogiidae) on the Caribbean coast of Honduras. *UNED Research Journal/Cuadernos de Investigación UNED*, 5(2), 227-230. <https://doi.org/10.22458/urj.v5i2.295>
- Martínez, R. M. L., Calderón, A. M. Z., Flores, D. M. S., & Vicente, C. R. F. (2022). Avances en la investigación científica de cetáceos en América Central durante la década 2011-2021. *Revista Minerva: Revista Científica Multidisciplinaria de la Universidad de El Salvador*, 5(1), 49-59. <https://doi.org/10.5377/revminerva.v5i1.15683>
- McAlpine, D. F. (2018). Pygmy and dwarf sperm whales: *Kogia breviceps* and *K. sima*. In *Encyclopedia of Marine Mammals* (3rd ed., pp. 786-788). Academic Press. <https://doi.org/10.1016/B978-0-12-804327-1.00209-0>
- Meland, K., & Aas, P. Ø. (2013). A taxonomical review of the Gnathopausia (Crustacea, Lophogastrida), with new records from the northern mid-Atlantic ridge. *Zootaxa*, 3664, 199-225. <https://doi.org/10.11646/zootaxa.3664.2.5>
- Meza-Yáñez, R., Llamas-González, M., Landa Jaime, V., Michel Morfin, E., Flores Vargas, R., Delgado Trejo, C., Liñán-Cabello, M. A., & Ortega Ortiz, C. D. (2021). Strandings of pygmy sperm whales (*Kogia breviceps*) in the Mexican Central Pacific. *Latin American Journal of Aquatic Mammals*, 16(1), 46-50. <https://doi.org/10.5597/lajam00271>
- Moura, J. F., Acevedo-Trejos, E., Tavares, D. C., Meirelles, A. C., Silva, C. P., Oliveira, L. R., ... & Merico, A. (2016). Stranding events of *Kogia* whales along the Brazilian coast. *PLoS One*, 11(1), e0146108. <https://doi.org/10.1371/journal.pone.0146108>
- Muñoz-Hincapié, M. F., Mora-Pinto, D. M., Palacios, D. M., Secchi, E. R., & Mignucci-Giannoni, A. A. (1998). First osteological record of the dwarf sperm whale in Colombia, with notes on the zoogeography of *Kogia* in South America. *Revista de la Academia Colombiana de Ciencias Exactas, Físicas y Naturales*, 22(84), 433–444. [https://doi.org/10.18257/raccefyn.22\(84\).1998.2936](https://doi.org/10.18257/raccefyn.22(84).1998.2936)
- Murcia, F. V., Brown, T. W., & Ramos, E. A. (2024). Stranding of a newborn false killer whale on Utila Island, Honduras. *Caribbean Journal of Science*, 54(2), 421-427. <https://doi.org/10.18475/cjos.v54i2.a20>
- Mutis, M. A., & Polanco, A. (2019). First stranding record of *Kogia sima* (Owen, 1866) in the Colombian Caribbean. *Latin American Journal of Aquatic Mammals*, 14(1), 18-26. <https://doi.org/10.5597/00250>
- Niño-Torres, C. A., García-Rivas, M. D. C., Castelblanco-Martínez, D. N., Padilla-Saldívar, J. A., Blanco-Parra, M. D. P., & de la Parra-Venegas, R. (2015). Aquatic mammals from the Mexican Caribbean; a review. *Hidrobiológica*, 25(1), 127-138. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S018888972015000100013&lng=es&tlng=en
- Ortega-Argueta, A., Pérez-Sánchez, C. E., Gordillo-Morales, G., Gordillo, O. G., Pérez, D. G., & Alafita, H. (2005). Cetacean strandings on the southwestern coast of the Gulf of Mexico. *Gulf of Mexico Science*, 23(2), 4. <https://doi.org/10.18785/goms.2302.04>
- Plön, S. (2004). *The status and natural history of pygmy (Kogia breviceps) and dwarf (K. sima) sperm whales off Southern Africa*. [Ph.D. dissertation, Rhodes University].
- Proceso Digital (2019). *Muerte de la Gran Berta alerta sobre brutal contaminación*. Proceso Digital. <https://proceso.hn/muerte-de-la-gran-berta-alerta-sobre-brutal-contaminacion/>
- Pugliarès, K. R., Bogomolni, A., Touhey, K. M., Herzig, S. M., & Harry, C. T. (2007). Marine mammal necropsy: an introductory guide for stranding responders and field biologists. *WHOI Technical Report 2007-06*. <https://doi.org/10.1575/1912/182>
- Ramos, E. A., Castelblanco-Martínez, D. N., Niño-Torres, C. A., Jenko, K., and Gomez, N. A. (2016). A review of the aquatic mammals of Belize. *Aquatic Mammals*, 42(4), 476-493. <https://www.aquaticmammalsjournal.org/article/vol-42-iss-4-ramos/>
- Ramos, E. A., Luque, A. P. I., Herrera, L., Antúnez, E., Brown, T. W.,

- & Castelblanco-Martínez, N. (2020). Stranding of a pregnant dwarf sperm whale (*Kogia sima*) in Utila, Honduras. *Latin American Journal of Aquatic Mammals*, 15(1), 25-29. <https://doi.org/10.5597/lajam00258>
- Ross, G. J. B. (1979). Records of pygmy and dwarf sperm whales, genus *Kogia*, from southern Africa, with biological notes and some comparisons. *Annals of the Cape Provincial Museums (Natural History)*, 11, 259-327.
- Ross, G. J. (1984). The smaller cetaceans of the south east coast of southern Africa. *Annals of the Cape Provincial Museums*, 15, 173-410.
- Sadove, S. S., & Morreale, S. J. (1990). Marine mammal and sea turtle encounters with marine debris in the New York Bight and the northeast Atlantic. In R. S. Shomura & M. L. Godfrey (Eds.), *Proceedings of the Second International Conference on Marine Debris: 2-7 April 1989, Honolulu, Hawaii* (NOAA-TM-NMFS-SWFSC-154, Vol. 1, pp. 562-570). US Department of Commerce. noaa.gov
- Santos, M. B., Pierce, G. J., Lopez, A., Reid, R. J., Ridoux, V., & Mente, E. (2006). Pygmy sperm whales *Kogia breviceps* in the Northeast Atlantic: New information on stomach contents and strandings. *Marine Mammal Science*, 22(3), 600-616. <https://doi.org/10.1111/j.1748-7692.2006.00038.x>
- Shamsi, S., Spröhnle-Barrera, C., & Hossen, M. S. (2019). Occurrence of *Anisakis* spp. (Nematoda: Anisakidae) in a pygmy sperm whale *Kogia breviceps* (Cetacea: Kogiidae) in Australian waters. *Diseases of Aquatic Organisms*, 134(1), 65-74. <https://doi.org/10.3354/dao03360>
- Solís, D. G., Vidal-Martínez, V. M., Antochiw-Alonso, D. M., & Ortega-Argueta, A. (2006). Anisakid nematodes from stranded pygmy sperm whales, *Kogia breviceps* (Kogiidae), in three localities of the Yucatan Peninsula, Mexico. *Journal of Parasitology*, 92(5), 1120-1122. <https://doi.org/10.1645/GE-3553RN.1>
- Stamper, M. A., Whitaker, B. R., & Schofield, T. D. (2006). Case study: morbidity in a pygmy sperm whale *Kogia breviceps* due to ocean-bourne plastic. *Marine Mammal Science*, 22(3), 719. <https://doi.org/10.1111/j.1748-7692.2006.00062.x>
- Tarpley, R. J., & Marwitz, S. (1993). Plastic debris ingestion by cetaceans along the Texas coast: two case reports. *Aquatic Mammals*, 19(2), 93-98.
- Vallejo-Ham, A., Castelblanco-Martínez, N., & Pinel, A.L. (2026). Fatal asphyxiation with plastic debris in a melon-headed whale (*Peponocephala electra*, Gray, 1846) off the coast of Honduras, and first record of the species for the country. *Aquatic Mammals*, 52(1), 20–26. <https://doi.org/10.1578/am.52.1.2026.20>
- Walker, W. A., & Coe, J. M. (1990). Survey of marine debris ingestion by odontocete cetaceans. In R. S. Shomura & M. L. Godfrey (Eds.), *Proceedings of the Second International Conference on Marine Debris: 2-7 April 1989, Honolulu, Hawaii* (NOAA-TM-NMFS-SWFSC-154, Vol. 1, p. 747). US Department of Commerce. <https://repository.library.noaa.gov/view/noaa/6012>
- West, K., Walker, W., Baird, R., White, W., Levine, G., Brown, E., & Schofield, D. (2009). Diet of pygmy sperm whales (*Kogia breviceps*) in the Hawaiian Archipelago. *Marine Mammal Science*, 25, 931-943. <https://doi.org/10.1111/j.1748-7692.2009.00295.x>
- Willis, P. M., & Baird, R. W. (1998) Status of the dwarf sperm whale, *Kogia simus*, with special reference to Canada. *Canadian Field-Naturalist*, 112, 114-125.
- Xacur Maiza, J. Á., Torres, M. C. L., Carlos, E. V., Vélez, L. D. C. V. & Bonfil, A. H. (1998) *Enciclopedia de Quintana Roo*. Verdehalago.