

caruncle. Eggs remaining from clutch “C” began hatching on 28 July 2019, and 14 hatchlings had emerged by 29 July. These hatchlings were all maintained as were the hatchlings group-housed from the other clutch. Average mass for the ten turtles in clutch B was 9.1 g; range: 7.9–10.4 g; clutch C turtles averaged 7.9 g at hatch (range: 7.4–8.7 g).

The seven group-housed turtles from clutch B were incidentally examined on 4 August 2019 (day 17 post-hatch) and several no longer had a visible or palpable caruncle. At this time, the egg tooth on individually housed turtle B-1 was barely palpable, while it was readily visible on turtles B-2 and B-3. Of the three individually housed hatchling turtles from clutch B, the egg tooth on B-1 had resorbed by day 23 post-hatch, on B-2 by day 26, and the caruncle on B-3 remained present until day 57. Images showing the gradual diminution of the caruncle are shown in Figure 1. For clutch C, all fourteen hatchlings still had a visible or palpable caruncle by day 17 post-hatching. However, by the next day, six had no evidence of a caruncle remaining. Over the next several days, of the remaining eight turtles, approximately one turtle's egg tooth was resorbed each day; with the last turtle's caruncle absent by day 28 post-hatch. We believe the caruncle was gradually resorbed in the turtles rather than being shed intact, as it became less prominent, smoother, and diminished in size over time. However, due to the very small size of the caruncle, we cannot exclude the possibility these were shed and went undetected in the tanks.

Retention time of the caruncle has been reported for very few species of turtle. Platt et al. (in press, *op. cit.*) noted that other authors reported relatively brief retention periods of the caruncle (≤ 7 d); see Muller 1921 (Am. Midl. Nat. 7:180–184) and Lovich et al. (2014. Herpetol. Monogr. 28:93–109). One study reported “the egg tooth usually is present for the first few days after the turtle enters the water” for *Pseudemys [Trachemys] scripta* (Cagle 1950. Ecol. Monogr. 20:31–54). However, similar to our findings, Platt et al. (in press, *op. cit.*) saw lengthy retention periods for the egg-tooth, with *C. vandijki* hatched in late September and late October–early November having persistent caruncles in some neonates as late as mid-December; possibly as an artifact of captivity or nutritional status.

It is of interest that the duration of the caruncle was widely variable between clutches in our study, and between individuals within a clutch. Of note, our method to evaluate egg tooth regression was subjective, attempts to measure the caruncle were unsuccessful as the turtle quickly withdrew its head when touched lightly with calipers. It may be that the individually housed hatchling turtles were less active due to being housed in a smaller container, and if their metabolic rate and growth was slower, the rate of caruncle resorption probably slowed. Interestingly, the turtle that took the longest for the egg-tooth to regress (B-3) was the largest hatchling of that clutch (10.4 g at hatch). Temperature may also influence rate of resorption of the caruncle, with presumably higher temperatures resulting in faster resorption of the caruncle. This possibility might be a topic for future studies, as well as the regression of the caruncle in free-ranging specimens. Also, comparisons of these phenomena between this non-native introduced population and native *A. ferox* in Florida populations may warrant further investigation.

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RUTH M. ELSEY, Louisiana Department of Wildlife and Fisheries, 5476 Grand Chenier Highway, Grand Chenier, Louisiana, 70643 USA (e-mail:

relsey@wlf.la.gov); **STEVEN G. PLATT**, Wildlife Conservation Society – Myanmar Program, No. 12, Nanrattaw St., Kamayut Township, Yangon, Myanmar (e-mail: sgplatt@gmail.com).

CHELONIA MYDAS (Green Sea Turtle). BI-NATIONAL RECAPTURES. Through genetic analysis, it has been documented that south Texas, USA, bays and estuaries are important developmental habitat for juvenile *Chelonia mydas* primarily originating from Mexican rookeries (Shamblin et al. 2017. J. Exp. Mar. Biol. Ecol. 488:111–120; Shaver et al. 2017. PLOS ONE 12:e0173920). Though several mark-recapture records demonstrate *C. mydas* travel between foraging grounds in south Texas and in Tamaulipas, Mexico (Shaver 2000. Distribution, Residency, and Seasonal Movements of the Green Sea Turtle, *Chelonia mydas* (Linnaeus, 1758), in Texas. Texas A&M University, College Station, Texas. 273 pp.; Shaver et al. 2013. In Lutterschmidt [ed.], Reptiles in Research, pp. 463–484. Nova Science Publishers, Inc., Hauppauge, New York), few records document the connectivity of south Texas foraging grounds to *C. mydas* nesting beaches and foraging grounds south of Tamaulipas. Shamblin et al. (2017, *op. cit.*) and Shaver et al. (2017, *op. cit.*) briefly mention two mark-recapture records documented between Texas and Veracruz, Mexico, but do not highlight the significance or uniqueness of these strandings. Herein, we further detail the three mark-recapture records documented between Texas and Veracruz, and Texas and Quintana Roo, Mexico, since the establishment of the Texas Sea Turtle Stranding and Salvage Network in 1980.

On 2 April 2006, a live juvenile *C. mydas* was found stranded on the Gulf of Mexico (GoM) beachfront at Padre Island National Seashore, Kenedy County, Texas, USA. At time of recovery, the *C. mydas* measured 30.5 cm curved carapace length (CCL), 25.5 cm curved carapace width (CCW), and 2.87 kg. The *C. mydas* was transported to the Amos Rehabilitation Keep (ARK) in Port Aransas, Nueces County, Texas for rehabilitation. The *C. mydas* was given a Passive Integrated Transponder (PIT) tag (#441455215C; Biomark, Boise, Idaho, USA) and released into the upper Laguna Madre near Port Aransas on 7 May 2006. The *C. mydas* was found stranded on 29 January 2008, on the GoM beach of Veracruz, Mexico. The *C. mydas* was identified as the juvenile released in Texas 632 days prior, based on the PIT tag (#441455215C). The stranded *C. mydas* was transported to the Veracruz Aquarium (Acuario de Veracruz) for rehabilitation. The size of the *C. mydas* at recovery is not available. After the second rehabilitation, the *C. mydas* measured 36.2 CCL, 28.3 CCW, and 5.5 kg, was released at Playa Salinas in Veracruz on 3 July 2008.

On 18 January 2007, a live juvenile *C. mydas* was found hypothermic stunned in South Bay in the lower Laguna Madre near Port Isabel, Cameron County, Texas. The *C. mydas* was first transported to Sea Turtle, Inc. (STI) on South Padre Island, Cameron County, Texas, then to the Texas State Aquarium in Corpus Christi, Nueces County, Texas for rehabilitation. An Inconel metal tag (#XJ626; National Band and Tag Company, Newport, Kentucky, USA) was present in the left front flipper at stranding but was removed during routine examination at STI for identification as the first digits were obscured by a barnacle. The Inconel tag identified the *C. mydas* as a juvenile hatched in 2004 on X'cabel Beach in Quintana Roo, Mexico, and held in captivity for 15 months at the Xcaret Park in Playa del Carmen, Quintana Roo. The *C. mydas* had been marked with a living tag in the second central scute on the right side of the carapace, and the Inconel tag (XJ626) in the left front flipper, in 2004. The *C. mydas* was released from Xcaret Park on 2 August 2005, and measured 33.7 cm CCL, 28.3 cm CCW, and

4.2 kg. Upon recapture in Texas on 18 January 2007, the living tag was not observed until barnacles that covered it were removed. The *C. mydas* measured 48.1 cm CCL, 43.4 cm CCW, and 13.3 kg, documenting ca. 14.4 cm CCL, 15.1 cm CCW, and 9.1 kg of growth over the 534 days between release from Xcaret Park in 2005 and recapture by STI in 2007. On 21 February 2007, the rehabilitated *C. mydas* was released into the lower Laguna Madre near Port Isabel. A PIT tag and two Inconel tags were applied before release. There was negligible growth while in rehabilitation in Texas.

On 4 February 2011, a live juvenile *C. mydas* was found hypothermic stunned in the Gulf Intracoastal Waterway in the upper Laguna Madre near Corpus Christi, Nueces County, Texas. At recovery, the *C. mydas* measured 62.2 cm CCL, 52.5 cm CCW, and ca. 25 kg. The *C. mydas* was rehabilitated at the ARK, given a PIT tag (#4A685D0172), and released into the upper Laguna Madre on 15 March 2011. The *C. mydas* was found stranded on 6 October 2011, offshore of Veracruz 205 days later (Shaver et al. 2017. *op. cit.*) and was identified as the *C. mydas* released in Texas based on a PIT tag (#4A685D0172). The size of the *C. mydas* at recovery is not available. The *C. mydas* was transported to the Veracruz Aquarium for rehabilitation and was released into GoM waters offshore from Veracruz on 9 October 2011. At release after this second rehabilitation, the *C. mydas* measured 66.5 cm SCL, 56.5 cm SCW, and 35 kg.

This is the first record of a *C. mydas* marked with a living tag in Quintana Roo, Mexico, recaptured in Texas, and the only two records of *C. mydas* tagged in Texas and recaptured in Veracruz, Mexico. These three mark-recapture records underscore the importance of continued international partnership for the recovery of the threatened western GoM *C. mydas* stock.

DONNA J. SHAVER (e-mail: donna_shaver@nps.gov), **HILARY R. FRANDSEN**, and **JENNIFER SHELBY WALKER**, Padre Island National Seashore, 20300 Park Road 22, Corpus Christi, Texas 78418, USA; **JEFFREY A. GEORGE**, Sea Turtle, Inc., 6617 Padre Blvd, South Padre Island, Texas, 78597, USA; **RAÚL DE JESÚS GONZÁLEZ DÍAZ MIRÓN**, Acuario de Veracruz A.C., Boulevard Manuel Avila Camacho s/n Playon de Hornos, C.P. 91900, Col. Ricardo Flores Magon, Veracruz, Mexico.

CHELONIA MYDAS (Green Sea Turtle). INCIDENTAL CAPTURE. Drifting fish aggregating devices (dFADs) are manmade floating structures used in the purse seine fishing industry to capture

schools of pelagic fish. dFADs consist of a floating raft, plastic mesh webbing, and a satellite-tracking buoy that enables fishing vessels to locate and collect these devices. The PEW charitable Trust Report estimated that as many as 121,000 dFADs were left adrift in 2013 (Gershman et al. 2015. PEW Environ. Group). These unrecovered dFADs become ghost fishing gear and pose a significant threat to sea turtles by entanglement and risk of ingestion. The entanglement of sea turtle species in dFADs has been documented in the Indian, Atlantic, and Pacific Oceans (Hall et al. 2013. FAO Fish. Rep. 568:179–189), as well as the Mediterranean (Blasi et al. 2016. Herpetol. Con. Bio. 11:386–401), but not in the Gulf of Mexico prior to this report.

On 29 June 2019, Padre Island National Seashore (PAIS) staff arrived at the campsite of a visitor who found two stranded *Chelonia mydas* entangled in a dFAD at the PAIS 57.9 km marker, on North Padre Island, Kenedy County, Texas, USA (26.90130°N, 97.36970°W; WGS 84). The raft portion of the dFAD, constructed



FIG. 1. The dFAD and stranded Green Sea Turtles found washed ashore at Padre Island National Seashore, Kenedy County, Texas, USA on 29 June 2019.

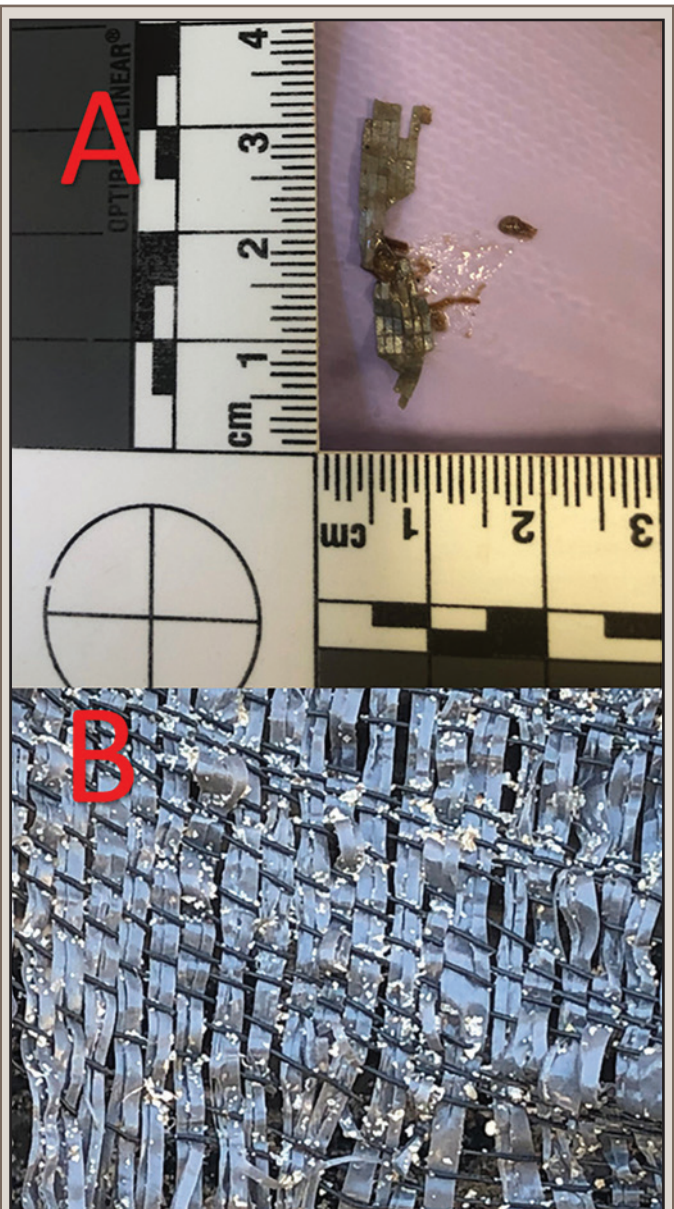


FIG. 2. The dFAD netting found in the contents of one turtle's stomach (A) and on the dFAD (B).