

From: Steve Weege <sweege@inwater.org>
Sent: Tuesday, April 12, 2022 2:57 PM
To: Koperski, Meghan
Cc: Eldridge, Jodie; Ken_Frehafer@fpl.com; Marine Turtle Permits; Michael Bresette; EndangeredSpecies Resource; SCO@dep.state.fl.us; Vince Munne; Eaton, Kristin; William Nurnberger; audra.livergood@noaa.gov; Sciscente, Richard; Seth.Duston@fpl.com; Cody Mott; Jguertin
Subject: [External_Sender] March 2022 FPL Marine Turtle Removal Monthly Report
Attachments: March 2022 Marine Turtle Captures.pdf; Monthly Report Notes 2022.pdf; FPL St. Lucie Capture Summary 2022.pdf

Mrs. Meghan Koperski
Tequesta Field Laboratory
19100 SE Federal Highway
Tequesta, FL 33469

Subject: Marine Turtle Removal Monthly Summary March 2022

Dear Meghan,

Attached, please find the monthly summary of marine turtle removals for March 2022. This month we captured seven *Caretta caretta*, five *Chelonia mydas*, and one *Lepidochelys kempii* in the intake canal of the St. Lucie power plant on Hutchinson Island. One sea turtle was sent for rehabilitation (non-causal) and there was one causal mortality in March. As with all sea turtle strandings at the Saint Lucie Plant, the Florida Fish and Wildlife Conservation Commission (FWC) was consulted and stranding forms were filed with the state through the Sea Turtle Stranding and Salvage Network.

One sea turtle was sent to rehab for non-causal injuries this month. On March 16th, an emaciated and lethargic adult male loggerhead was recovered from the primary barrier net. The turtle had a recent shark bite injury to the base of its right front flipper resulting in a large open wound. It was taken to the Gumbo Limbo Nature Center in Boca Raton for rehab. Because the injury/illness was unrelated to the power plant, this was classified as a non-causal stranding.

On March 14th, a fresh dead subadult Kemp's ridley was found lying against the bottom of the 5-inch barrier net (not entangled). The turtle was emaciated and missing its left eye from an old, healed injury. Furthermore, the turtle had extensive flipper and carapace damage, also from old, healed injuries. In accordance with protocol, it was held on ice for necropsy and final causality was determined by a licensed veterinarian. Despite being severely compromised, this turtle was determined to have drowned and was therefore deemed causal.

Under the direction of FPL, Underwater Engineering Services (UESI) replaced the primary 5-inch barrier net in March. The new Dyneema rope barrier net was placed atop the old net, prior to its removal, in order to minimize the chance of turtles progressing beyond the barrier. Inwater Research Group (IRG) biologists then provided 24-hour surveillance and support during the net replacement process.

The primary 5-inch barrier net encountered severe amounts of algae this past month. IRG performed around-the-clock monitoring of the intake canal and barrier net system either as warranted by sufficiently high debris intrusion levels or whenever directed by FPL oversight personnel. Furthermore,

UESI divers inspected and cleaned the 5-inch barrier net as needed. Altogether, the primary barrier net has performed as designed and no turtles have been observed beyond the 5- inch net. The tag numbers and morphometric data for all turtles captured during the month have been included with this report (see attachments/addendums). Also included is a spreadsheet for all captures, mortalities, injuries, and causal events delineated by species and by month for 2022. In addition, this spreadsheet tracks fresh scrapes incurred on captured turtles for the current month, as well as the entire year.

Please feel free to contact me with any questions.

Sincerely,

Steve
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| Files | Size | Date & Time |
|--|-------------|------------------------|
| MESSAGE | 3351 | 4/12/2022 2:57:15 PM |
| March 2022 Marine Turtle Captures.pdf | | 84432 |
| Monthly Report Notes 2022.pdf | 68040 | |
| FPL St. Lucie Capture Summary 2022.pdf | | 85118 |

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**MARINE TURTLE REMOVALS
ST. LUCIE PLANT INTAKE CANAL
MARCH 2022**

| Date | Species | Note | Tag #'s | SMCL (cm) | SSCL (cm) | CSCL (cm) | CMCW (cm) | SMCW (cm) | SMPL (cm) | Weight (kg) | Method |
|-------------|--------------------------------|-------------|-----------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------------|---------------|
| 3/9/2022 | <i>Caretta caretta</i> | | FFE582/FFE581 | 65.1 | 66.6 | 69.9 | 64.5 | 53.3 | 50.0 | 39.7 | North net |
| 3/12/2022 | <i>Chelonia mydas</i> | 1 | FFE423/FFE424 | 39.7 | 40.0 | 41.7 | 35.1 | 31.6 | 32.3 | 7.5 | Hand capture |
| 3/12/2022 | <i>Caretta caretta</i> | 2 | KKL0681/KKL0680 | 62.6 | 64.4 | 68.4 | 64.4 | 54.5 | 47.0 | 36.0 | Hand capture |
| 3/14/2022 | <i>Lepidochelys kempii</i> | 3 | STW220314-001 | 54.5 | 55.1 | 56.2 | 65.4 | 58.4 | 42.3 | 21.0 | Barrier net |
| 3/16/2022 | <i>Chelonia mydas</i> | 4 | FFE583/FFE584 | 47.5 | 48.0 | 49.3 | 42.0 | 37.5 | 39.6 | 13.9 | North net |
| 3/16/2022 | <i>Chelonia mydas</i> | 5 | KKL0843/KKL0844 | 57.2 | 57.4 | 59.0 | 54.1 | 47.1 | 47.4 | 24.6 | South net |
| 3/16/2022 | <i>Caretta caretta</i> | 6 | WEC220316-001 | 84.0 | 84.2 | 86.7 | 75.5 | 61.8 | | 70.5 | Barrier net |
| 3/17/2022 | <i>Chelonia mydas</i> | 7 | KKG101 | 52.8 | 53.0 | 55.3 | 50.3 | 41.2 | 43.4 | 19.5 | North net |
| 3/18/2022 | <i>Caretta caretta</i> | | FFE585/FFE586 | 74.5 | 75.8 | 77.0 | 74.5 | 63.9 | 60.7 | 68.5 | South net |
| 3/19/2022 | <i>Chelonia mydas</i> | | FFE587/FFE588 | 63.1 | 63.3 | 64.7 | 54.4 | 48.6 | 51.1 | 27.4 | South net |
| 3/21/2022 | <i>Caretta caretta</i> | | FFE589/FFE590 | 50.6 | 51.1 | 55.0 | 53.1 | 46.5 | 39.8 | 22.1 | South net |
| 3/29/2022 | <i>Caretta caretta</i> | | FFE591/FFE592 | 69.2 | 70.2 | 73.5 | 67.5 | 57.3 | 56.5 | 52.3 | North net |
| 3/30/2022 | <i>Caretta caretta</i> | | FFE593/FFE594 | 73.4 | 74.7 | 77.7 | 74.8 | 61.2 | 58.1 | 57.2 | North net |

NOTES

1. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 9/15/21, 10/31/21, 12/10/21, 1/21/22, 2/7/22, and 3/12/22.
2. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/23/19, 12/15/19, 1/19/20, 7/24/20, 3/3/21, 6/8/21, 8/11/21, 10/19/21, and 3/12/22.
3. DEAD (CAUSAL MORTALITY). Stranding# STW220314-001. Fresh dead subadult Kemp's ridley found lying against the bottom the 5-inch barrier net (not entangled). The turtle was emaciated. Also missing its left eye from an old healed injury. Turtle was missing a portion of its marginals on each side of posterior carapace (healed). Missing 40% of its left front flipper (healed). Held on ice for necropsy and final causality determination from a licensed veterinarian. Despite being severely compromised, the turtle was determined to have drowned and was therefore deemed causal.
4. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 4/19/18, 5/24/18, 11/5/18, 3/1/20, 7/27/20, 9/22/20, 12/30/20, and 3/16/22.
5. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 8/12/18, 10/5/18, 12/17/18, 9/26/19, 10/22/19, 12/7/19, 1/4/20, 10/7/20, 12/15/20, 1/30/21, and 3/16/22.
6. REHAB (NON-CAUSAL). Stranding# WEC220316-001. Emaciated and lethargic adult male loggerhead recovered from the surface of the 5-inch barrier net. Turtle had a recent shark bite injury to the base of its right front flipper, leaving a large open wound. Sex determination from tail length (tail extended 21.5cm beyond carapace). No ventral measurements were taken due to the condition of the turtle. Gumbo Limbo Nature Center personnel transported this animal to their facility in Boca Raton for rehab.
7. RECAPTURE. Turtle was removed from the intake canal, tagged and released at Hutchinson Island on 7/19/18, 12/10/18, 3/31/19, 12/9/19, 1/7/20, 2/15/20, 5/5/20, 8/11/20, 10/25/20, 1/13/21, 4/22/21, 1/5/22, and 3/17/22.

SMCL = Straight Minimum Carapace Length

SMCL = Straight Standard Carapace Length

CSCL = Curved Standard Carapace Length

CMCW = Curved Maximum Carapace Width

SMCW = Straight Maximum Carapace Width

SMPL = Straight Midline Plastron Length

| | Loggerheads (<i>Caretta caretta</i>) | | Green turtles (<i>Chelonia mydas</i>) | | Hawksbills (<i>Eretmochelys imbricata</i>) | | Leatherbacks (<i>Dermochelys coriacea</i>) | | Kemp's ridley (<i>Lepidochelys kempii</i>) | | Overall Totals | |
|-------------------------------------|---|--------------|--|--------------|---|--------------|---|--------------|---|--------------|----------------|--------------|
| | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date |
| Captures | 7 | 25 | 5 | 32 | 0 | 0 | 0 | 0 | 1 | 1 | 13 | 58 |
| Causal Mortalities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Non-causal Mortalities | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Causal Injuries | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sent to rehab | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Fresh Scrapes | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date | Mar-22 | Year to Date |
| None | 3 | 7 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 12 |
| Minor | 4 | 18 | 3 | 27 | 0 | 0 | 0 | 0 | 1 | 1 | 8 | 46 |
| Moderate | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Severe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent with mod/sev scrapes | 0.0% | 0.0% | 0.0% | 0.0% | N/A | N/A | N/A | N/A | 0.0% | 0.0% | 0.0% | 0.0% |