

EARLY WARNING SYSTEM

Central EWS 2008 FINAL REPORT

Aerial Surveys to Reduce Ship/Whale Collisions
in the Calving Ground of the North Atlantic Right Whale (*Eubalaena
glacialis*)

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INTRODUCTION

There are fewer than 400 North Atlantic right whales (*Eubalaena glacialis*)¹ in the world, despite international protection since 1935 and federal protection since 1970. Failure of the North Atlantic stock to show signs of recovery can be attributed to several factors, including the effects of human activity on mortality rates. Vessel strikes account for the largest number of confirmed deaths. Of the 79 right whale mortalities documented from 1970 through June 2008, at least 28 (35%) were due to collisions with vessels and 9 (11%) were due to entanglements (Knowlton and Kraus, 2001; unpublished data, New England Aquarium). In addition, serious injuries caused by human activity in some cases can lead to the animal's demise (Knowlton and Kraus, 2001). A recent analysis of the 25 year right whale database (1980-2004) indicates a median population growth rate of about 1% (Pace et al., 2007) which is likely due to an increase in calf numbers since 2001. Yet, the authors also note that the population has "almost no capacity to absorb additional mortality, and growth would benefit greatly if mortalities from ship strikes and entanglements were reduced."

The coastal waters of the Southeast U.S. (SEUS) support the only known calving ground for this small population. Some calving may occur as far north as the Carolina's based on a small number of mother/cow and calf pairs (M/C) seen in those waters early or late in the calving season. Calving right whales typically arrive in the area in December to give birth and depart the habitat by late February to mid March to head for the feeding grounds off the Northeast U.S. However, right whales have been documented as early as September and as late as July in this area. Vessel traffic within the SEUS critical habitat is high as three major shipping channels transect the right whale high density area between Brunswick, Georgia (GA) and St. Augustine, Florida (FL).

The three major entrance channels serve three commercial shipping ports and two military bases. The Brunswick channel, at the northern end of the critical habitat extends 8 nautical miles (nmi) (14.6 km) offshore and serves the port of Brunswick, GA. The channel centered in the area at the GA/FL border is the St. Marys entrance channel, which runs 14 nmi (25.9 km) offshore and serves the Kings Bay Naval Submarine Base, as well as the port of Fernandina Beach, FL. The southern-most channel is the St. Johns River entrance channel, which runs 4 nmi (7.28 km) offshore and serves the port of Jacksonville, FL and the Mayport Naval Base. This is by far the busiest channel in the area with all forms of large vessel traffic, including container ships, car carriers, tankers, bulk freighters, tug and tows and cruise ships as well as U.S. Coast Guard (USCG) and U.S. Naval (USN) vessels. Commercial vessel traffic in this federally designated critical habitat has increased substantially over the past 40 years (Knowlton et al., 1997). Port expansions and diversions of military traffic to local bases closed elsewhere augment this trend. Based out of many small inlets and harbors along the coast, commercial fishing,

¹ North Atlantic Right Whale Report Card. North Atlantic Right Whale Consortium. November 2007. http://www.rightwhaleweb.org/pdf/NARWC_Report_Card2007.pdf

charter and recreational vessels increase the traffic utilizing and transiting the area dramatically.

The Brunswick and St. Marys River Entrance channels are dredged almost annually while dredging the St. Johns River Entrance channel is less frequent to maintain required depths. This occurs during the winter to avoid impacts to sea turtles that frequent the area in summer. Dredged material is usually removed from channels and carried to offshore disposal sites using ocean-going hopper dredges. These vessels work continuously, often making many transits between channels and disposal sites within a 24-hour period. Consequently, dredging activities substantially increase the vessel traffic in the vicinity of channels and within critical habitat.

During the 1994 calving season (December 1993 through March 1994), the first comprehensive aerial surveys, referred to as the Early Warning System (EWS) surveys, were conducted to locate right whales and provide whale detection and reporting services to mariners in the calving ground, including the USN, Army Corps of Engineers (ACOE) and USCG; and port authorities and harbor pilots. These groups have used the sighting information in their efforts to avoid collisions with right whales.

From 1994 to 2002, the New England Aquarium's (NEAq) EWS surveys covered the majority of the high-density area and provided daily coverage of the three shipping channels within it. Prior to the start of the 2003 calving season, surveys in the SEUS were redesigned to allow for more daily coverage of a larger area. Beginning in 2003, the NEAq's EWS surveys were extended eastward to 30-35 nmi (54.8-63.9 km) from the coast and reduced in latitudinal range. The area includes the St. Marys River Entrance and the St. Johns River Entrance. This redesigned survey area is referred to as the Central EWS survey area. To the north, Georgia Department of Natural Resources (GDNR) conducts similar surveys that represent the Northern EWS surveys. In addition, Florida Conservation Commission/Florida Wildlife Research Institute (FWC) conducts surveys in the southern section of the critical habitat (southern EWS).

At the advent of the 2004 calving season survey aircraft and crew used during the EWS surveys were held to newly imposed federal standards. Survey aircraft were all certified under 14 CFR, Part 135 (airline, aircraft less than 10 seats). In addition, pilots and observers underwent intense pre-season training that included emergency-egress. Pilots also attended FAA Part 135 ground school and passed all associated check rides. A second pilot in command (SIC) was also added to each survey flight to ensure a higher safety margin during survey operations. The addition of a second pilot limited data recording during the surveys that were conducted in a Cessna 337 as the number of science crew was reduced from three to two persons due to weight and balance constraints. For this reason all surveys flown since 2004 have been conducted without a dedicated data recorder.

This report describes the results of the Central EWS right whale aerial survey effort, during the 2007-2008 season (December 1, 2007 – March 31, 2008). The report also shares right whale identification data collected throughout the region by other aerial survey teams.

ACOE, USCG and USN provide the funding for Central EWS surveys with support from the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries).

METHODS

Aerial Surveys

Central EWS surveys were flown daily from December 1, 2007 through March 31, 2008. The surveys were conducted in the area from the southern end of Cumberland Island, GA, approximately 6.5 nmi (12 km) north of the St. Marys River entrance (30° 50.0N), to Jacksonville, FL, approximately 6.5 nmi (12 km) south of the St. Johns River entrance (30° 17.0N), from the shoreline to 30-35 nmi (54.8-63.9 km) offshore. Twelve east/west transects were flown perpendicular to the coast at 3 nmi (5.5 km) intervals with a western limit of 0.5 nmi (0.9 km) off the shoreline. A total of 406 nmi (761 km) of on-transect tracklines were flown during each completed survey. In addition, a small number of contingency surveys were flown. When an aircraft of an adjacent survey (northern EWS or southern EWS) was unable to fly for a period of time (due to maintenance or extended disentanglement efforts) a pre-approved contingency plan would be flown. Contingency plans were developed to ensure aerial survey coverage of port entrances in the absence of one (2-plane contingency) or two (1-plane contingency) of the EWS survey aircrafts. The redirected survey for the central EWS team during the 2-plane contingency plan covered an area extending approximately 26 nmi (47.6 km) north of the Brunswick-Bar channel sea-buoy (31° 26.0N) south to the St. Marys River Entrance channel sea-buoy (30° 41.0N). Fourteen east/west transects were flown perpendicular to the coast 3 nmi (5.5 km) intervals from 0.5 nmi (0.9 km) off the shoreline out to 15- 24 nmi (27.5-43.9 km) from the shore.

Necessary conditions for all flights included a minimum ceiling of 1000 feet (305 meters), visibility greater than 3 nmi (5.5 km) and winds less than 17 knots. Surveys were conducted in a 14 CFR Part 135 certified twin engine Cessna 337 Skymaster. The aircraft was equipped with Global Positioning System (GPS), Automated Identification System (AIS) receiver, Automatic Flight Following (AFF) transponder, full IFR (instrument flight rules) instrumentation, aircraft mounted marine radio, life raft, medical kit, a waterproof handheld VHF marine radio, a registered removable 406MHz EPIRB, aircraft mounted ELT and satellite phone.

The surveys were flown at an altitude of 1000 feet (305m) above sea level and an average air speed of approximately 100 Mph (160 km/hr). The survey team consisted of a pilot-in-command (PIC), pilot-second-in command (SIC), and two observers positioned on each side of the aircraft in the rear seats. Each observer was individually equipped with, but not limited to, a Nomex flight suit, FAA approved survival vest, strobe light, rescue streamer, combo-edge knife and Personal Locator Beacon (PLB) with GPS. The observers scanned the water surface out to at least 2 nmi (3.7 km). In order to maintain standardized sighting effort, the PIC and SIC were instructed not to alert the observers to any sightings, but were allowed to report a sighting after it had been passed by the aircraft if missed by the observers. The distance of each right whale sighting from the flight track was measured using GPS positions of the sighting and the transect line.

All right whale sightings were recorded into a digital voice recorder and entered into a computerized logging program. Logger 2000 was created by International Fund for Animal Welfare (IFAW) and designed for compatibility with the Right Whale Consortium database, curated by the University of Rhode Island (URI). During surveys, Logger 2000 downloaded, at 10-second intervals, time, position (latitude and longitude), altitude, heading and aircraft speed directly from the aircraft's GPS. All downloaded data is stored in a Microsoft Access database. In addition to the automatically downloaded data, the observers could manually enter information on Beaufort, visibility, cloud cover, and weather. Due to the change in configuration of aircraft personnel with the addition of a second pilot and loss of the data recorder position no other marine species sightings were logged during flights except basking sharks and leatherback turtles. These two species were logged because of requests by researchers.

All commercial and military vessels were recorded. Vessels that were visually estimated to be 100 ft (30.5 m) or larger were recorded as they were visually sighted on the transect lines. In addition, detailed location and vessel information data of all commercial vessels required to carry an AIS transponder (Appendix 4) were recorded into a separate computerized database.

When sightings of right whales occurred, the aircraft left the transect line at a right angle to the sighting and flew directly over the whale(s) to obtain an exact GPS location of the whale(s). The aircraft then circled the whale(s), allowing observers to obtain photographic identifications of the individuals sighted. High-resolution digital images were obtained at an altitude of 1000 ft (305 m) using a digital D70 camera with a fixed Nikkor 300mm lens. At the conclusion of photographic work on each sighting, the aircraft returned to the transect line at the point of departure. These methods conformed to research protocols followed by the North Atlantic Right Whale Consortium (NARWC) as approved by NOAA Fisheries.

All photographic and effort data were submitted to NARWC at the conclusion of the survey season.

Notification of Agencies

During the EWS season, all right whale sightings were reported directly, via satellite phone, from the survey aircraft to a ground contact. The ground contact would immediately forward this near real time data to the EWS network through email. The EWS network consists of a marine user group, which includes local, state, federal, non-profit and commercial interests. Some network members are provided with pagers to receive the messages while other members prefer to receive this information via cell phone text messaging, email or other means. As a network member, the USCG transmits a Broadcast Notice to Mariners over VHF marine-band radio channel 16 once they are notified of right whale sightings via the network. Additionally the survey team ground contact is responsible for entering the right whale sighting information into the

Mandatory Ship Reporting System (MSR) via an Internet data entry portal which ensures that ships reporting into the MSR will be aware of the most recent right whale sightings.

Photographic Identification

At each sighting, observers obtained high quality images of right whale callosity patterns, and any scars and other markings that were obvious. The image numbers were recorded by date, time, right whale letter for the day and photographer. Digital metadata time was synchronized to the GPS and the computer-logging program (Logger 2000) times at the start of each survey for accuracy.

Right whale callosity patterns are used as a basis for identification and cataloging of individuals, following methods developed by Payne *et al.* (1983) and Kraus *et al.* (1986). The NEAq curates the North Atlantic Right Whale Catalog (the Catalog), which includes tens of thousands of sightings from numerous research groups and individuals. One or two good quality digital images of each right whale considered to be a new individual for the season were emailed to the NEAq office in Boston for preliminary identification. The identifications were shared with the NEAq team as well as other researchers from Associated Scientists at Woods Hole, Florida Fish and Wildlife Commission, Marineland, Marine Resources Council and Wildlife Trust (all of which also sent images to NEAq for preliminary identifications) and the NOAA Fisheries SEUS right whale coordinator. This allowed for an up-to-date tally of the number of mother/calf pairs during the season. Intermatching of non-mother/calf pairs was also initiated during the season. Photographs of all individuals were downloaded at the end of the day to look for entanglement or other injuries.

During and after the field season, right whale sightings and images from all teams are integrated into Digital Image Gathering and Information Tracking System (DIGITS), a web-based software system developed at NEAq to facilitate the matching process of all right whale sightings. Final matches to the catalog are confirmed by NEAq researchers.

Distribution

Sightings of all right whales were recorded by time and location within the study area. Integration of the right whale sightings data collected during these surveys with previously collected data will help to further define high-use areas within the southeast region. All right whale sightings for the season were plotted and displayed by group size and association type. Sightings were plotted for the four-month long season and also plotted by month to illustrate temporal distribution. In addition, ship traffic was plotted to visually compare right whale sightings versus ship traffic recorded by the aerial survey effort.

Sighting Distance

The sighting distance for each right whale sighting event was determined post season. The distance was calculated by using the GPS-derived overhead position of the whale(s) and the exact position of where the aircraft broke from the transect line. The sighting distance calculated by using the following calculation:

| | |
|--|---------|
| Aircraft's latitude when whale is sighted | =LAT A |
| Whale's latitude | =LAT B |
| Aircraft's longitude when whale is sighted | =LONG A |
| Whale's longitude | =LONG B |

LAT A-LAT B =LAT C
LONG A-LONG B= LONG C

Square root of ((LAT C x LAT C) + (LONG C x LONG C)) x 60= sighting distance (nmi)

Sighting events that occurred while the survey aircraft was not on transect were not included in the summary.

Demographics

A preliminary analysis of the sex and age composition of the 2008 wintering population of right whales in the survey area was conducted using data from all aerial surveys in the SEUS and the existing catalog of identified right whales from the western North Atlantic. Right whales with known ages (because they were previously identified in their calving year) were classified as juveniles (1-8 yrs) or adults (≥ 9 yrs). Whales of unknown age were classified as unknown age until their ninth year in which they become classified as an adult. All calving females were classified as adults regardless of age. Sexes were determined by one or all of the following methods: 1) direct observation of the genital area, 2) association with a calf, 3) by the testing of biopsy samples for a genetic marker unique to the Y chromosome (Brown *et al.*, 1994).

Calving Intervals and Rates

Right whale cows in this population have been monitored since 1980, and records of calf production are documented in the North Atlantic Right Whale Catalog (Kraus *et al.*, 2001). Data collected on reproductive females (cows) that were observed with a calf in the monitoring area during the survey period were used to update information on calving intervals, rates of reproduction, time frame and location of calving.

Associations and Behaviors

The survey team remained on site of each sighting until positive species identification was made. During this time photographs were obtained and visible associations and behaviors were recorded with as much detail as possible.

The time spent at each sighting is directly correlated to the survey team's ability to make an accurate species identification and obtain photographic documentation of the event. The exception was made in the event of a ship/whale interaction or "close calls", entanglement, dead whales and events that caused concern for the welfare of the whale(s) (whales in a shipping channel or river).

Whales are considered associated if within several body lengths of each other and coordinating their movements at the surface (Hamilton, 2002). Associations are described as one of the following types (although not all are seen in the SEUS).

1. Surface Active Group (SAG)
2. Mother/Calf (M/C) or Mother/Yearling pair
3. Feeding
4. Other – pairs, trios, no visible behavior, includes M/C with others if not in a SAG or feeding
5. Not associated

Behaviors were also recorded when observed. Photographers attempted to capture photographic evidence of the behaviors for later confirmation.

A whale or group of whales were also given a direction of travel if it was determined that the whale(s) had traveled a significant distance while the survey team was on site.

Vessel Sightings

All large vessels, greater than 100 ft (30.5 m), sighted during a survey were entered into Logger 2000. Vessels that are no longer recorded due to the loss of a dedicated recorder include commercial fishing vessels and all recreational vessels. The aircraft did not break track during large vessel sightings in order to maximize time available for survey effort. The position (latitude and longitude) of the aircraft was recorded when perpendicular to the vessel. The vessel was recorded with a bearing, estimated distance from the aircraft and the vessel's heading.

Vessels recorded included commercial and military vessels. Small commercial vessels (less than 100 ft) were also recorded, these include tugs, pilot boats and dredge crew and survey vessels. Data collected for each vessel recorded included type of vessel, time, and vessel heading. During a sighting event, if a vessel was determined to have the potential for a "close call" with a whale or group of whales the vessel was contacted directly by the survey aircraft in an attempt to prevent the threat of an interaction. When "close call" events occurred the survey team would record detailed information about the situation. Data collected included type of vessel, vessel's position, whale's position,

whale's reaction (if any), closest distance between whale and vessel, radio communication (if any) between aircraft and vessel, and vessel's actions (course change or speed change). All "close call" events, regardless of vessel type (commercial, military, recreational or commercial fishing) and vessel size, were recorded on a separate data sheet and reported at the conclusion of the survey to NOAA Fisheries. In addition, all "close call" reports were compiled and forwarded to FWC at the end of the season for inclusion in the close call database.

Automatic Identification System (AIS)

The AIS is a shipboard broadcast system that acts like a transponder, operating in the VHF maritime band, that is capable of handling well over 4,500 reports per minute and updates as often as every two seconds. AIS is currently being used for identifying and monitoring maritime traffic throughout U.S. waters by various entities monitoring commercial shipping activity. The AIS system sends and receives vessel identification information that is designed for display on a computer or chart plotter. The standards and regulation of AIS are established by the International Maritime Organization (IMO) and as established at the 73rd Session of their Maritime Safety Committee. The majority of large, commercial maritime traffic involved in international travel are currently required to carry AIS and the remaining commercial vessel traffic (coastal and international) is required as of July of 2007.

All commercial vessel traffic carrying AIS transponders (Appendix 1) were recorded in a separate database during all Central EWS and two-plane contingency surveys. Data was collected using a Sealinks, Shine Micro RadarPlus SL161R dual channel AIS receiver. Data from the AIS receiver was downloaded directly to the onboard laptop into Shipplotter, software by Centro de Observação Astronómica no Algarve (COAA). The data collected included Mobile Maritime Service Identities (MMSI), navigational status, rate of turn, speed over ground, position, course over ground, heading (true), and time every 2 to 10 seconds. In addition, every 6 minutes the IMO number, radio call sign, name, ship dimensions, draft, destination and estimated time of arrival were also recorded. AIS data were collected during survey flights only and covered an area extending from Charleston, SC to Jacksonville, FL. The AIS data provided information on ship densities and ship speeds through the critical habitat and if any changes in speed occur once entering MSR or critical habitat boundaries.

EWS RESULTS

Survey Effort

The central EWS survey team was on-site for 122 days (01 December 2007- 31 March 2008) during the right whale calving season and a total of 74 surveys were conducted. The first survey was conducted on December 2, 2007 and the last survey occurred on March 28, 2008.

Some surveys were conducted with favorable environmental conditions throughout the duration of the survey, where as others were flown with favorable environmental conditions during part of the survey. Favorable conditions were considered to consist of a Beaufort force 3 or less and visibility of at least 2 nautical miles (nmi).

During the 2008 season, 407 hours of survey effort resulted in 43 complete surveys ($\geq 90\%$ of survey area flown) and 31 partial surveys ($< 90\%$ of survey area flown). Thus, some measure of aerial coverage was provided 61% of the season. When a partial central EWS survey was conducted effort priority was given to the shipping channels (St. Marys River Entrance Channel and St. Johns River Entrance Channel) and the immediate surrounding areas. During a partial two-plane contingency survey the effort priority was given to the Brunswick and St Marys River Entrance channels. A summary of all survey effort (including the contingency surveys) is shown in Table 1.

During the 2008 EWS season, the Central EWS team was redirected during three different times in order to fly the two-plane contingency plan. Contingency survey flights occurred 22 January, 25 February and 29 March, 2008. A summary of the effort during the two-plane contingency surveys is described in Table 2. Figure 1 represents the survey area of the Central EWS and the two-plane contingency area flown by the Central EWS team when needed.

In order to evaluate how much effort was given to the EWS surveys during the 2008 season the number of days on site was multiplied by the on-transect miles per survey in order to evaluate how much of the available effort for the season was conducted in favorable sighting conditions (Beaufort ≤ 3 and visibility > 2 nmi). There are 406 on-transect miles (nmi) to be flown per Central EWS survey and 410 on-transect miles (nmi) per two-plane contingency survey. Therefore, 49,544 nmi were available to be flown during the 2008 season (119 days x 406 nmi + 3 days x 410 nmi). During the 2008 season 26,296 nmi of the available 49,544 nmi were flown (53.1%). Of the 26,296 nmi of trackline flown, 22,086 nmi were flown in favorable conditions (84%). Thus, 44.6% of the total miles available to be flown during the season were flown in favorable conditions. Figure 2 represents the survey effort flown by the Central EWS team during the 2008 season.

Table 1. Total Central EWS Survey Effort (including contingency surveys).

| Number of Available Survey Days | Number of Surveys Flown/ Percent | Number of Full Surveys | Number of Partial Surveys | Number of Available Transect Miles (nmi) | Number of Transect Miles Flown (nmi)/Percent of Total Available | Percent of Transect Miles Flown in Beaufort ≤ 3 | Number of Transect Miles Flown in Beaufort ≤ 3/ Percent of Total Available |
|--|---|-------------------------------|----------------------------------|---|--|--|---|
| 122 | 74 | 43 | 31 | 49,544 | 26,296 | | 22,086 |
| | | | | | 53.1% | 89.2% | 44.6% |

Table 2. Two-Plane Contingency Surveys

| Number of Surveys Flown | Number of Full Surveys | Number of Partial Surveys | Number of Transect Miles Flown | Number of Transect Miles Flown in Beaufort < 3/ Percent of Total Available |
|--------------------------------|-------------------------------|----------------------------------|---------------------------------------|--|
| 3 | 2 | 1 | 1,080 | 875 |
| | | | | 81% |

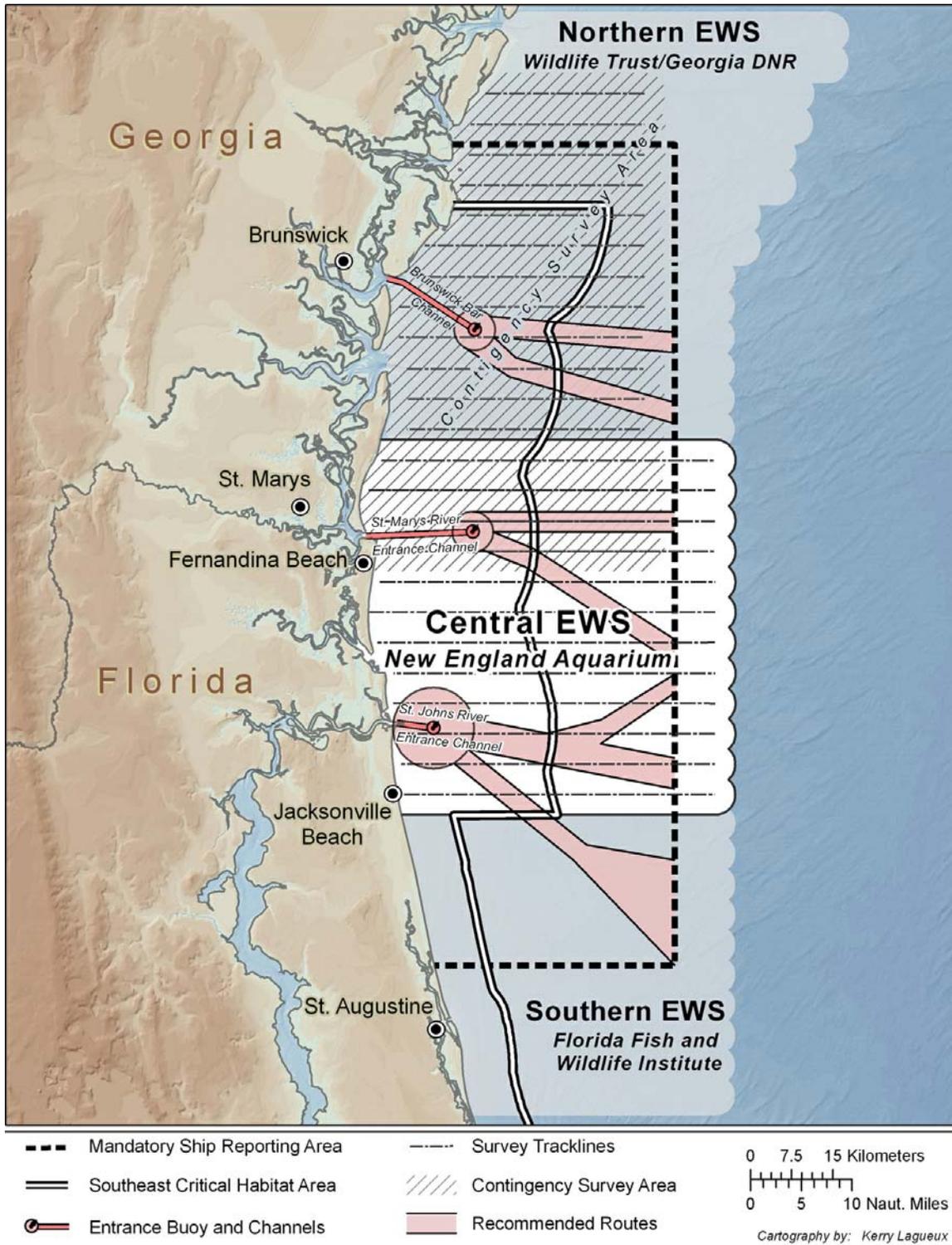


Figure 1. Central EWS Survey Area (including contingency plan flow by NEAq). Projected in Universe Transverse Mercator, Zone 17, using North American Datum 1983.

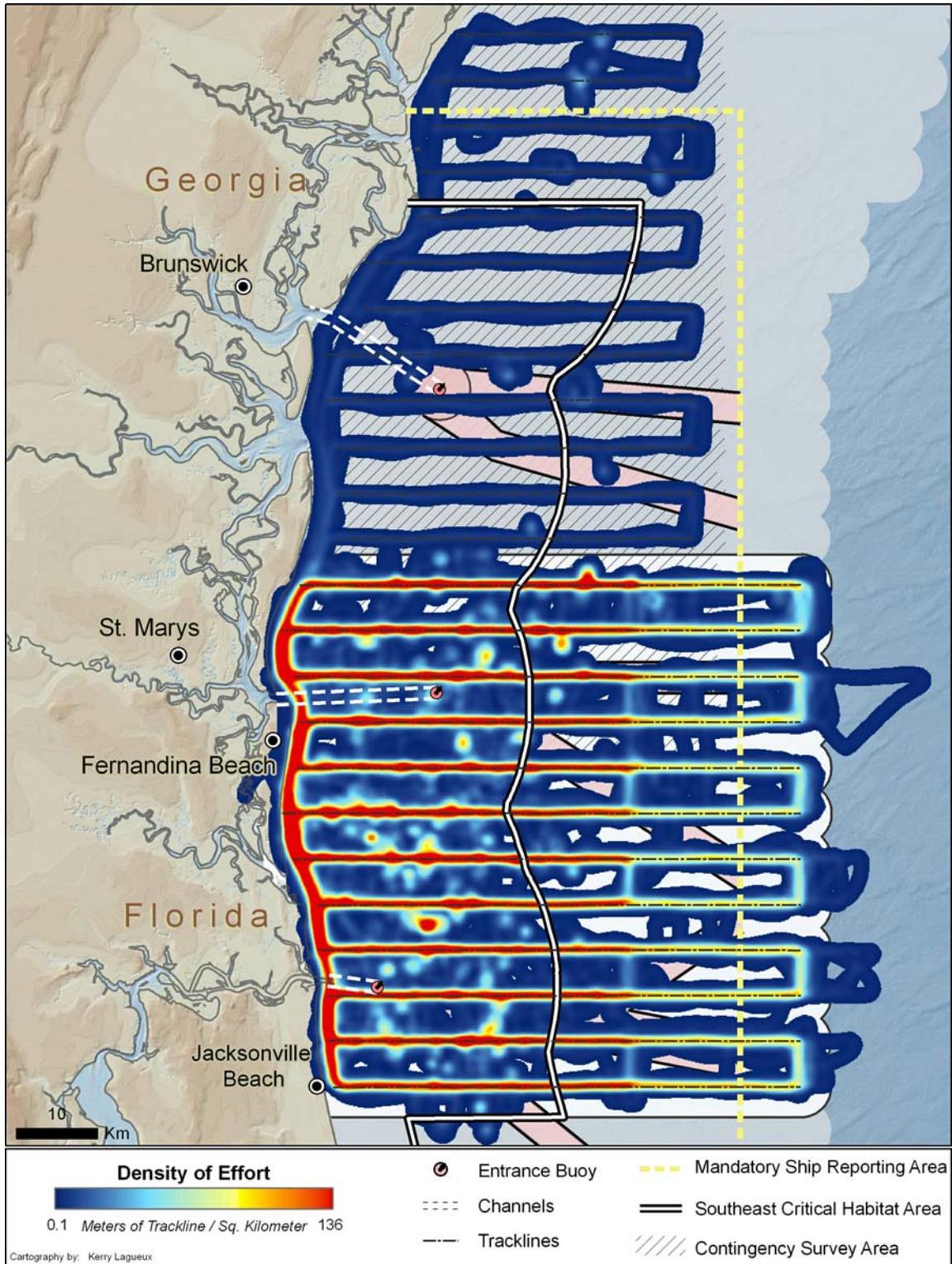


Figure 2. Central EWS Survey Effort (including contingency plan flown by NEAq). Projected in Universe Transverse Mercator, Zone 17, using North American Datum 1983.

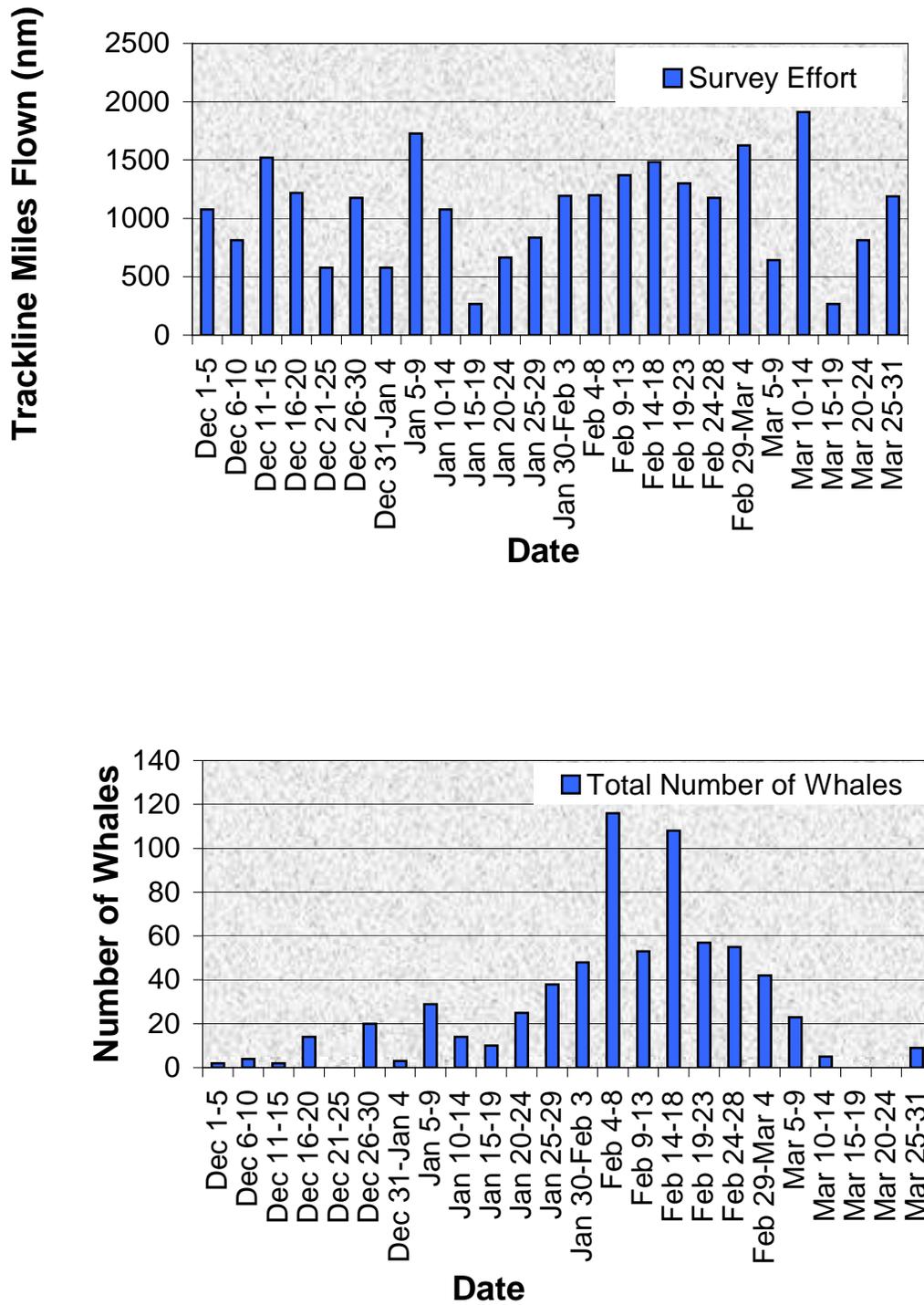


Figure 3. Temporal Occurrence of Right Whales during the Central EWS 2008 Season.

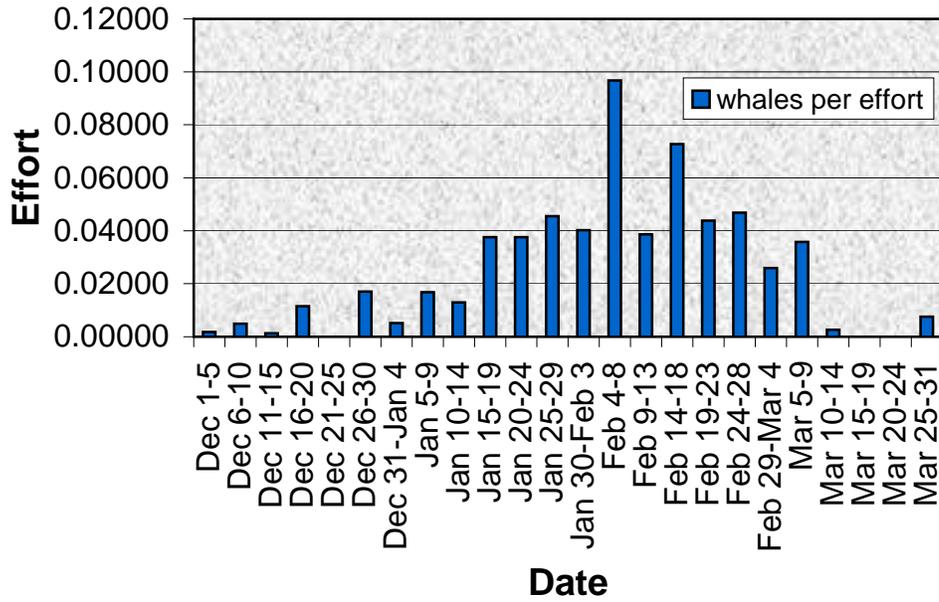


Figure 4. Effort vs. Number of Right Whales.

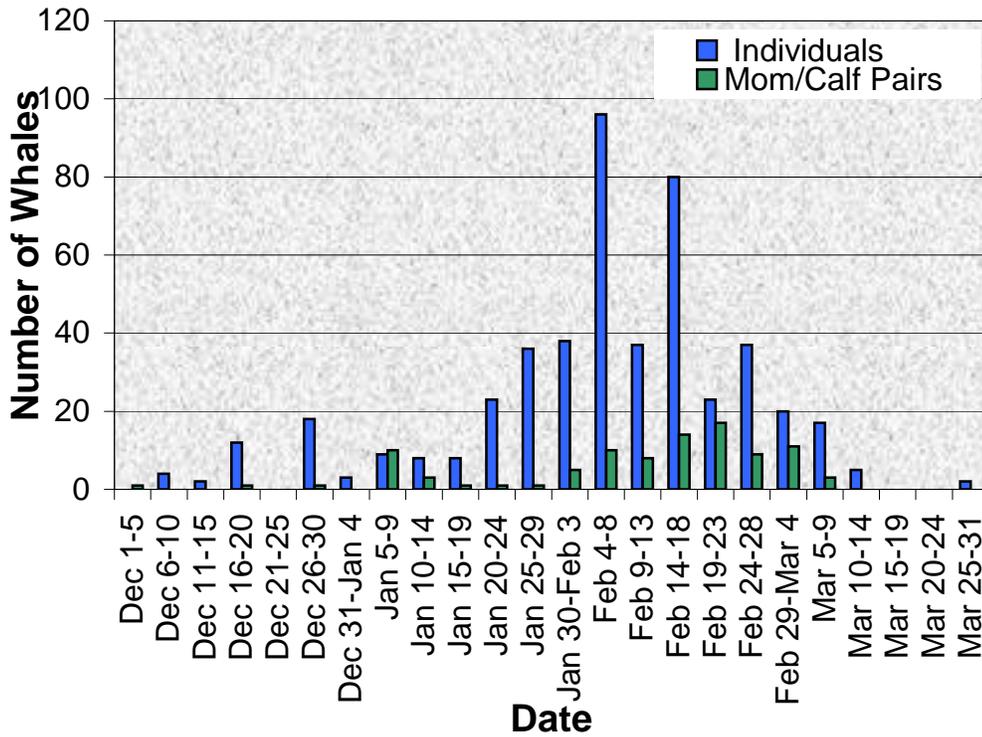


Figure 5. Temporal Occurrence of Right Whales. Mom/Calf Pairs vs. Individuals in the Central EWS during the 2008 Season.

Sightings and Photo-identifications

A sighting event is defined as an event by which the aircraft breaks from the trackline and a whale or group of whales are circled until they are positively identified as right whales. A single sighting event can be of a single whale or a group of whales. The first right whale sighting documented by the Central EWS survey occurred on 05 December 2007. As the coastal, southern progression of right whales continued the number of right whale sighting events increased from 1 to a maximum of 21 sighting events per day with as many as 44 individual whales (Figure 3). Sightings continued throughout the season with the last right whale sighting reported by the Central EWS on 27 March 2008. Figure 4 represents the sightings per unit of survey effort for the season. The temporal occurrence of non-mom/calf right whales in the survey area peaked by early February and slowly subsided toward the end of the month while the temporal occurrence of mom/calf pairs was consistently high during February (Figure 5) and rapidly declined after the first week of March.

All Central EWS right whale sightings from the 2008 season are plotted on a chart of the study area in Figure 6 (including the 3 days of two-plane contingency survey) and plotted monthly in Figure 7. All sightings of right whales are detailed in a table in Appendix 2 with the date, time, location, association and behavior type where applicable of each whale. Also included are the catalog identification numbers when known.

There were 326 sighting events of 693 right whales, including calves (not all unique individuals) in the central EWS survey area (including 3 days of survey effort as the two-plane contingency) during the 2008 season. Of the 21 females (as of early August 2008) known to have given birth in the 2008, 20 of them were documented in the SEUS and 19 of them were documented with their calves. One right whale female was not documented in the SEUS but was documented with a calf elsewhere in 2008 (#1321 was documented in North Carolina in May). Also, one female right whale was documented in the SEUS prior to calving but was later documented with a calf elsewhere (#3115 was first documented with a calf in the Bay of Fundy in July). Of the 20 documented in the SEUS, 18 were documented (with calves) in the EWS. The Central EWS documented 17 of the 20 moms known to be in the EWS area.

All 326 sighting events were reported to the EWS pager system and all sighting events were photo-documented although, only 689 of the 693 right whales were photographed.

Of the 326 right whale sighting events that were photo-documented, 93 of the sightings were of single whales (includes pregnant females), 107 of mom/calf pairs, 44 sightings were groups of whales associated in a SAG and 82 sightings were “others”, i.e. groups of whales not alone, in a SAG or M/C pair.

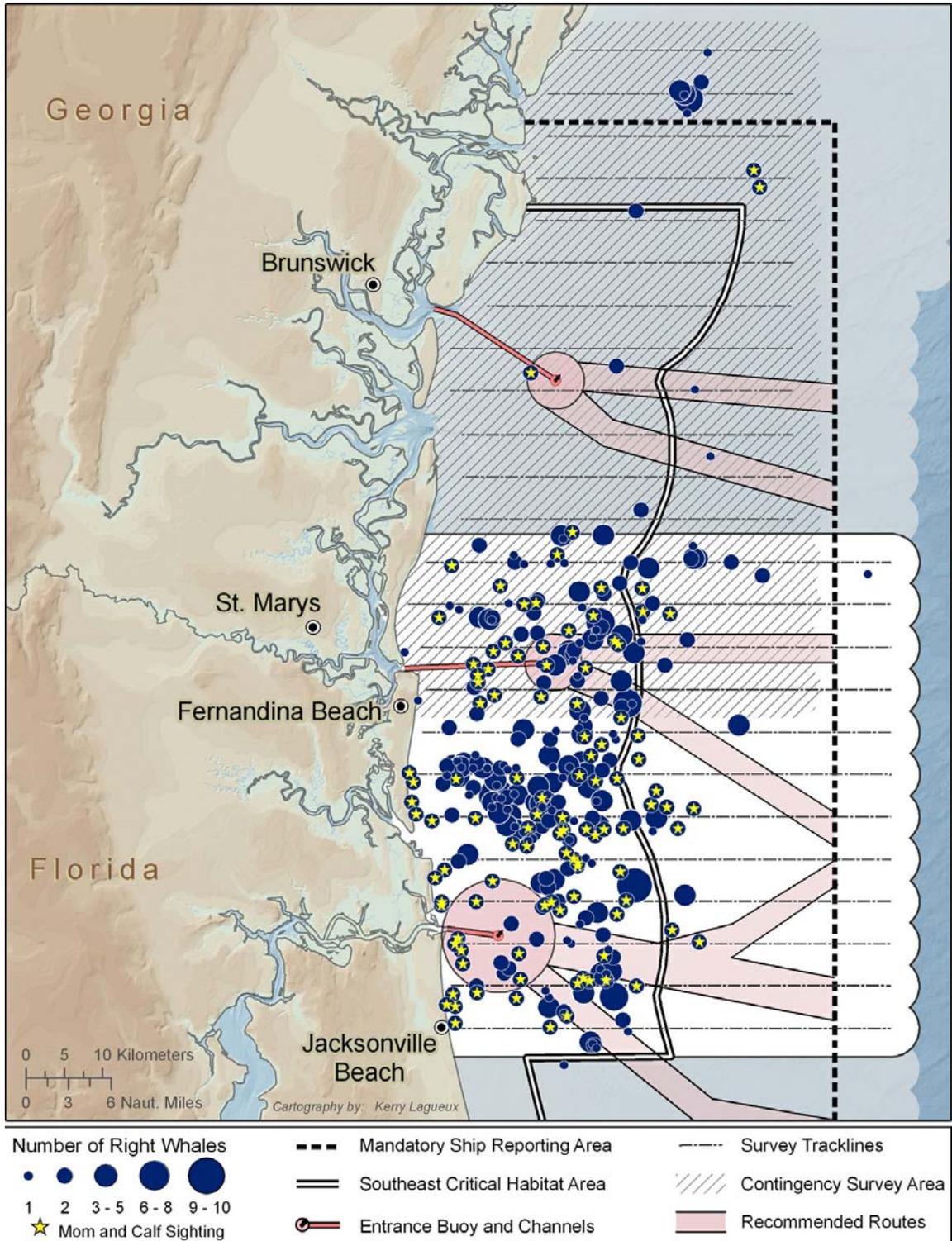


Figure 6. Right Whale Sightings (including contingency plan flow by NEAq). Projected in Universal Transverse Mercator, Zone 17, using North American Datum 1983.

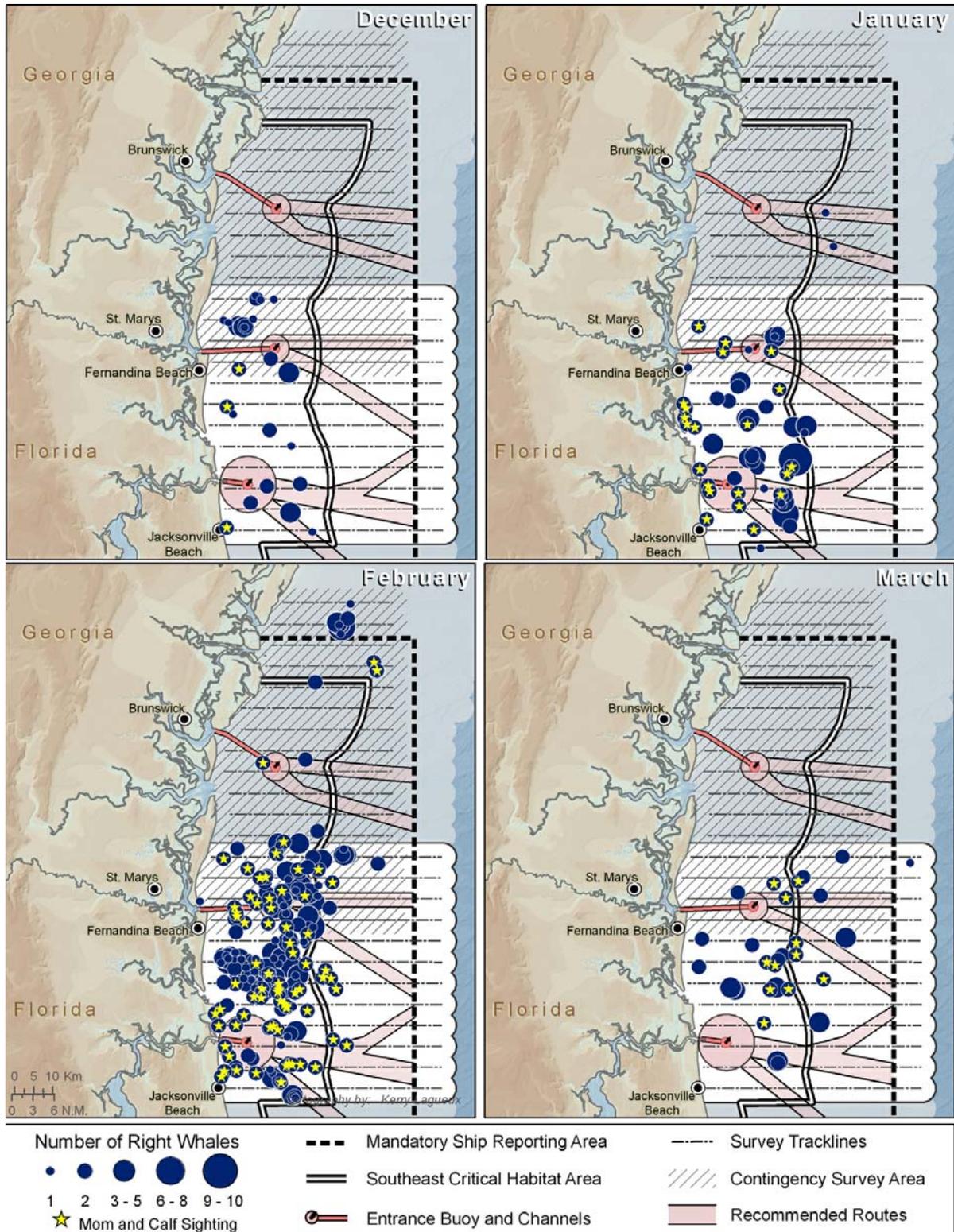
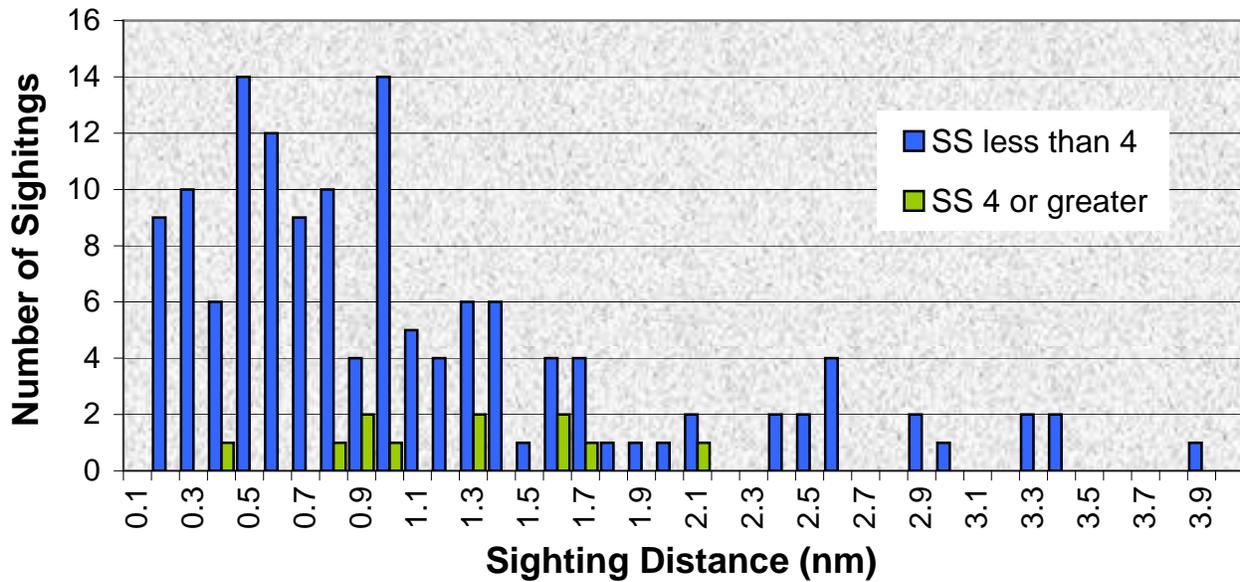


Figure 7. Right Whales Sightings by Month (including contingency plan flown by NEAq). Projected in Universal Transverse Mercator, Zone 17, using North American Datum 1983.

Sighting Distances

Sighting distances for right whale sighting events are summarized by 1/10 nmi increments in Figure 7. Sighting events that occurred while the survey aircraft was not on transect were not included in this analysis. The mean sighting distance, without considering Beaufort sea-state conditions as a factor is 1.1 nmi. A summary of sighting distances where Beaufort sea-state was considered is shown in Figure 8. Analysis of Beaufort sea state and sighting distances shows a mean of 1.1 nmi during times of Beaufort 3 or less. The mean sighting distance during times of Beaufort 4 or greater is 1.2 nmi but the frequency (Table 3) is reduced considerably (n =139 and 11,



respectively).

Figure 7. Central EWS Sighting Distance.

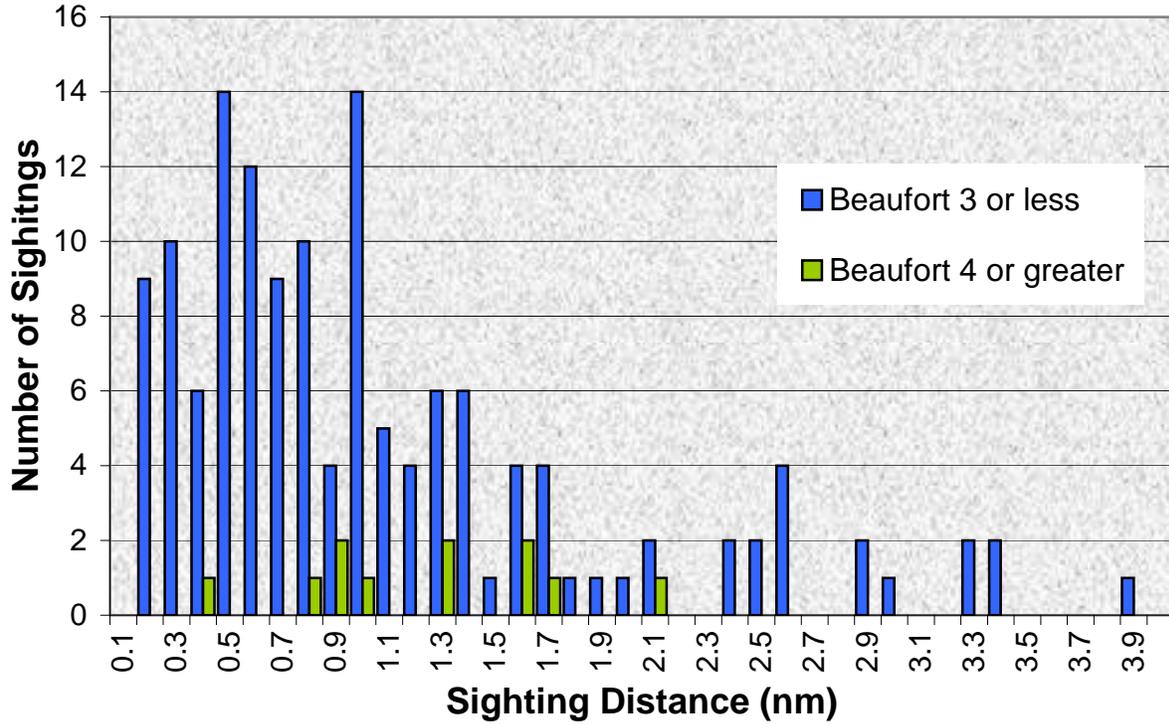


Figure 8. Sighting Distance (Beaufort Sea State Considered).

| | Beaufort ≤ 3 | Beaufort 4 or Greater |
|---------------------------------------|-------------------|-----------------------|
| Number of Transect Miles Flown (nmi) | 22,086 | 4,210 |
| Number of Right Whale Sighting Events | 139 | 11 |

Table 3: Right Whale Sighting Frequency

Demographics

The matching and confirming process for right whale identifications is still currently being conducted for the 2008 season. For this reason we are unable to illustrate a complete demographic structure for the area. However, we do know that the area was highly utilized by a number of unidentified whales thought to be juveniles. Many of these whales have been matched to calves from previous years and are given a temporary intermatch code. The preliminary count of whales documented during the 2008 season by all survey teams in the EWS area are 18 M/C pairs, 90 catalogued individuals (non M/C pairs) and 20 intermatched whales (probable juveniles) for a minimum total of 128 right whales. We anticipate that once the data from all teams has been matched or intermatched and compared to the catalog, this number of right whales seen during the 2008 season may change slightly.

Figure 9 is a graphical depiction demographic structure of the SEUS during the 2008 season of the known 146 matched and/or intermatched right whales.

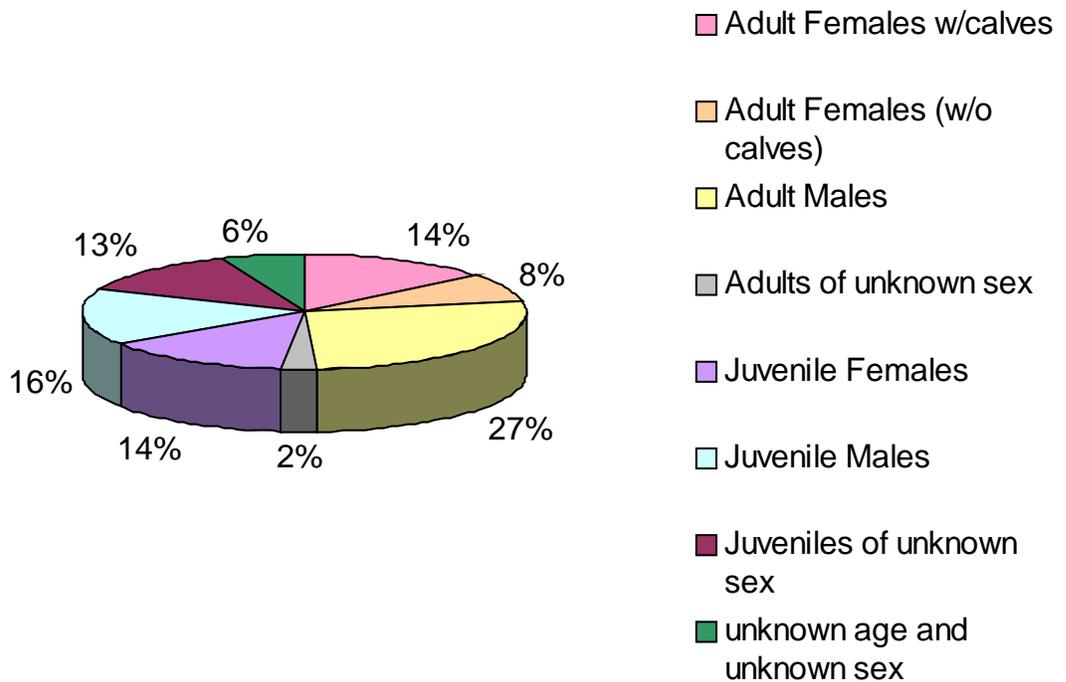


Figure 9: Demographic structure of the 2008 EWS area.

Calving Intervals and Rates

Preliminary data from the 2008 calving season shows the calving interval ranged from 2-4 years with a mean of 3.0 for all cows with multiple calvings. Three of the 11 cows with multiple calvings had a two-year calving interval (#1243, #1301 and #1802)

but all three of them had calves in 2006 that died. The calving interval not including these three cows is 3.3 years. Table 4 includes calving interval, number of calves and age class/age (when known) of each cow from the 2008 season. Seven right whales calved for the first time in 2008. All whales were documented in the Central EWS survey area except #1321, #1632, and #3180. Right whale #1321 was not documented in the SEUS and #1632 and #3115 were documented in the EWS survey area but only prior to calving.

Associations

During the 2008 season all right whale association types were documented except for feeding. Appendix 2 summarizes all association types observed during each right whale sighting event.

Table 4. Calving Interval

| | | | |
|----------------|--------------|----------|------------|
| 1243 | 26 | 5 | 2* |
| 1245 | 26 | 4 | 3 |
| 1301 | 25 | 4 | 2* |
| 1308 | 25 | 3 | 3 |
| 1321*** | Adult | 4 | 4 |
| 1408 | 24 | 4 | 3 |
| 1622 | Adult | 4 | 3 |
| 1632 | Adult | 3 | 3 |
| 1703 | 21 | 3 | 3 |
| 1802 | 20 | 3 | 2* |
| 1812 | Adult | 4 | 4 |
| 2040 | 18 | 3 | 3 |
| 2330 | Adult | 2 | 4 |
| 2753 | 11 | 1 | N/A |
| 2790 | Adult | 2 | 3 |
| 3020 | Adult | 1 | N/A |
| 3115** | Adult | 1 | N/A |
| 3130 | 7 | 1 | N/A |
| 3180 | 7 | 1 | N/A |
| 3292 | 6 | 1 | N/A |
| 3293 | Adult | 1 | N/A |

*In 2006 the calves of #1243, #1301 and #1802 died.

** Only seen in the SEUS prior to calving

***Not seen in the SEUS (only seen in NC)

Note: Please note that in late August 2008 and additional (the 22nd) M/C pair were documented in the Bay of Fundy. Right whale #1123 was not seen in the SEUS during the 2008 season.

Vessel Sightings

The tracks of all commercial shipping traffic recorded during the CEWS surveys during the 2008 season that carry an AIS transponder are plotted in Figure 10 (See Appendix 1 for the AIS carriage requirements for vessels). This plot contains the track of the vessel as it moved through the habitat and represents the density of traffic within a given area. Figure 11 displays the same data on density but according to ship type, tanker or cargo (not including tugs, dredges and pilot boats). Figure 12 displays the same shipping traffic as Figure 10 but the plot represents average vessel speed of all commercial shipping traffic (including tugs, dredges and some pilot boats) and Figure 13 displays the same data on average speed but according to ship type, tanker or cargo. Figures 10, 11, 12 and 13 only represent shipping traffic during the timeframe that the survey aircraft is airborne. Figure 14 contains a plot of vessel traffic that is not required to carry AIS and was observed during surveys and recorded abeam of the survey aircraft (plot does not include the track or speed of the vessel).

“Close Call” or Ship/Whale Interactions

During the 2008 season the survey aircraft documented 11 “close call” or vessel/whale interactions events. A “close call” is defined as a situation when the survey team visually determines that a vessel is on a course that will result in the vessel and whale(s) being less than one nmi apart. At the time of this of this determination the survey team attempts to make contact, via Marine VHF Ch. 16, with the vessel in question. During the 2008 season the central EWS survey team was able to make positive contact in five of the nine “close call” situations documented. Table 5 summarizes the nine “close call” events documented.

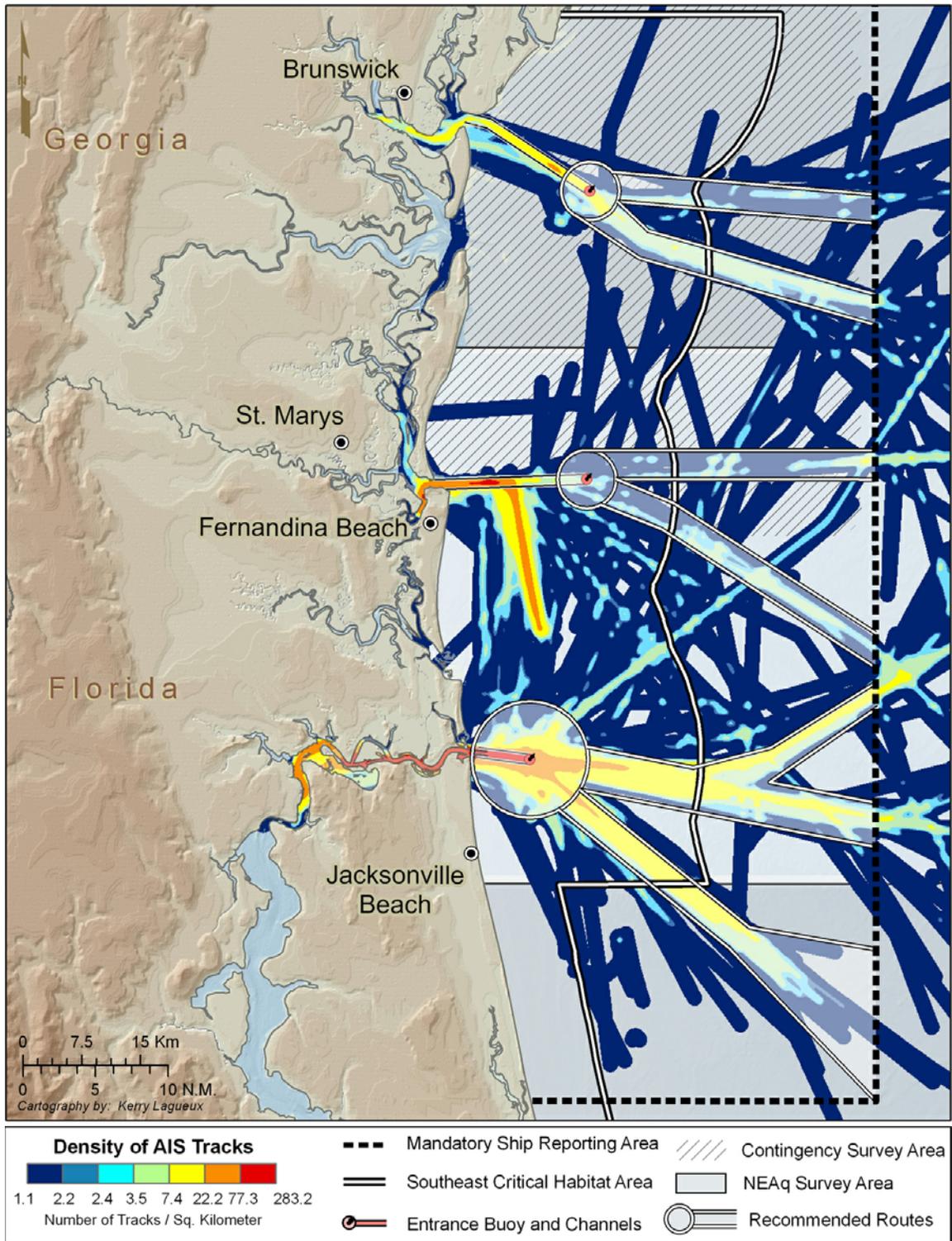


Figure 10. Commercial shipping traffic density recorded during Central EWS flights (including tugs, dredges and some pilot boats). Projected in Universal Transverse Mercator, Zone 17, using North American Datum 1983.

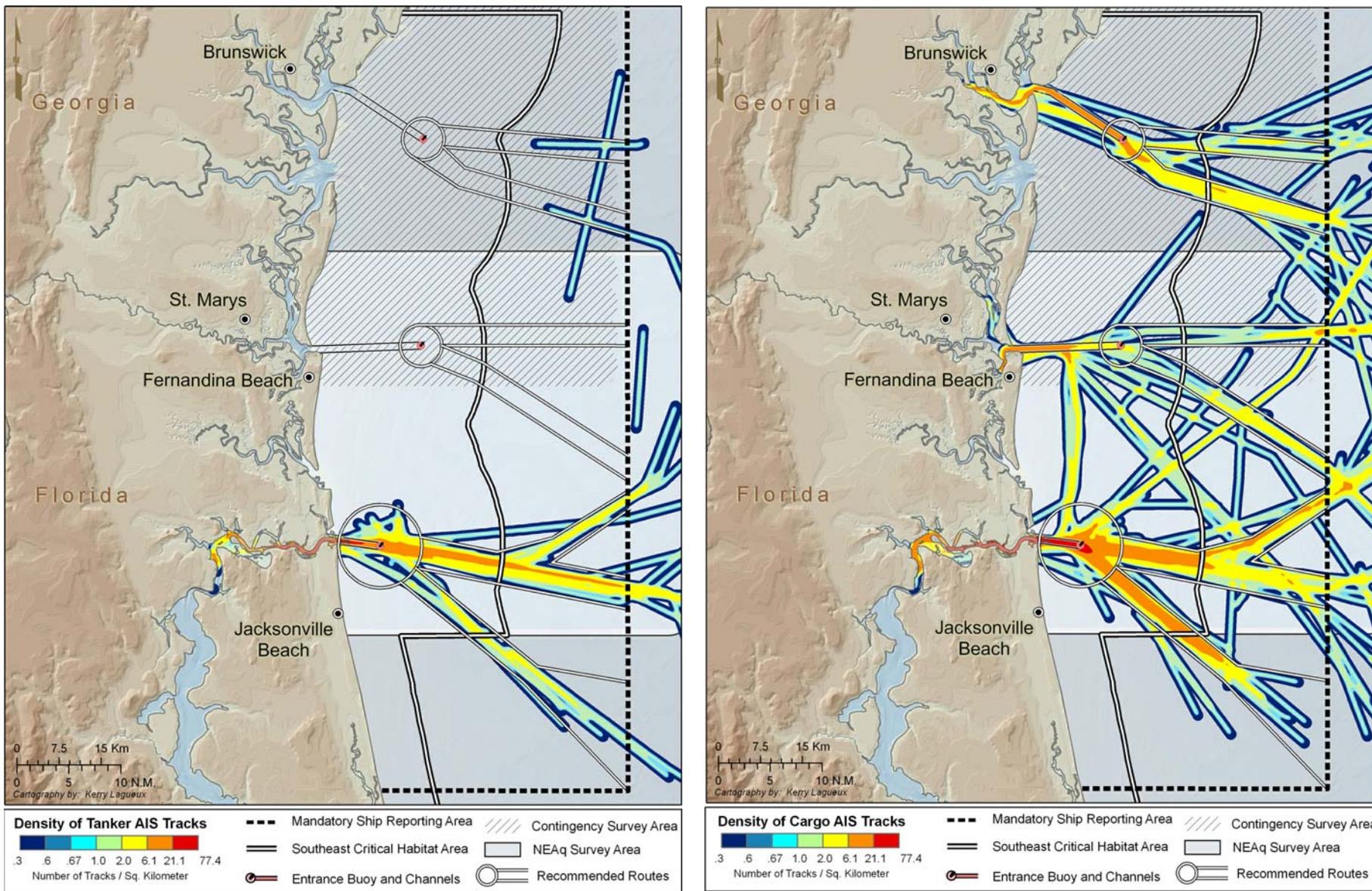


Figure 11. Commercial Shipping Traffic in the Central EWS 2008. Density Tanker vs. Cargo. Projected in Universal Transverse Mercator, Zone 17, using North American Datum 1983.

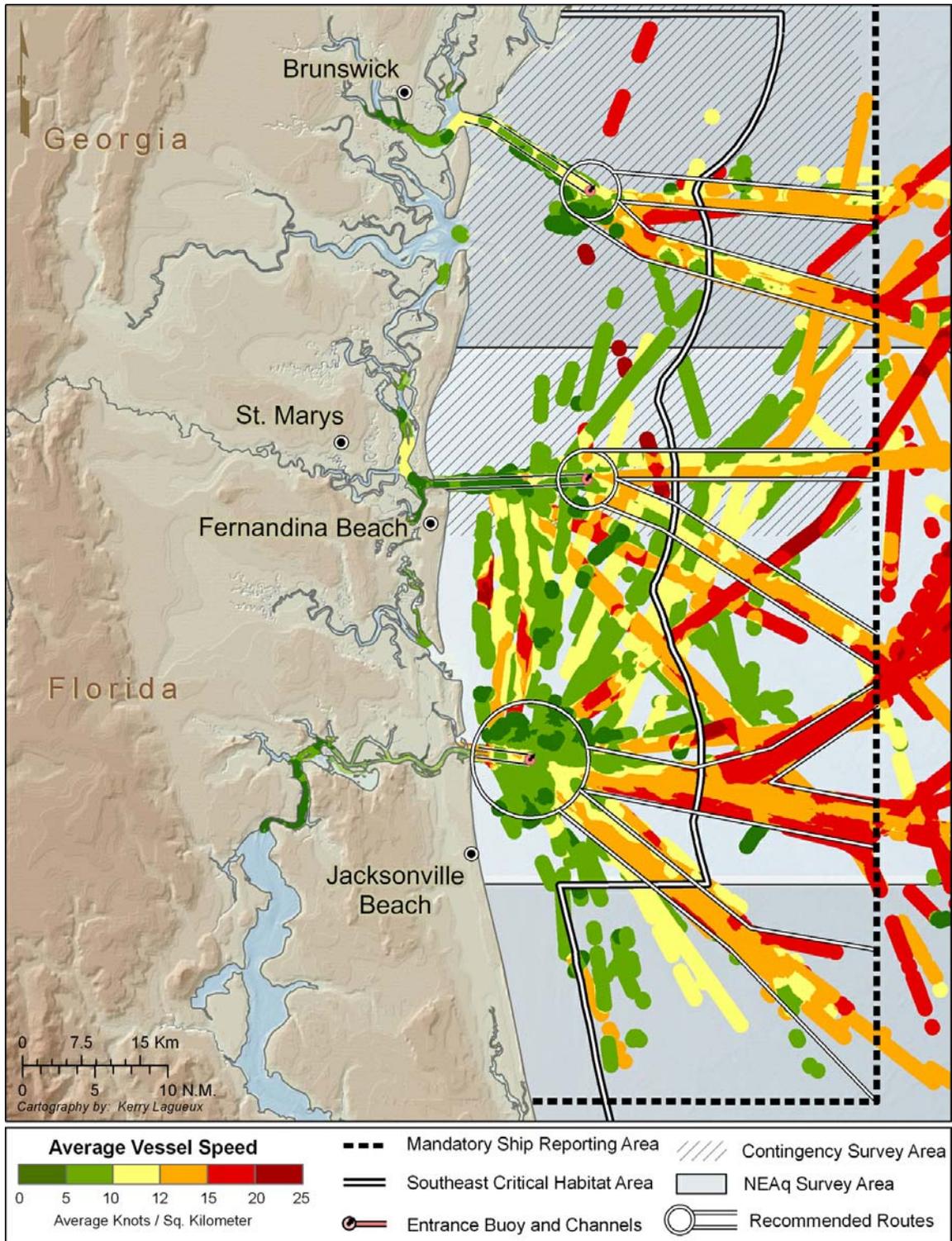


Figure 12. Average Commercial Shipping Traffic Speed (including tugs, dredges and some pilot boats) Central EWS 2008. Projected in Universal Transverse Mercator, Zone 17, using North American Datum 1983.

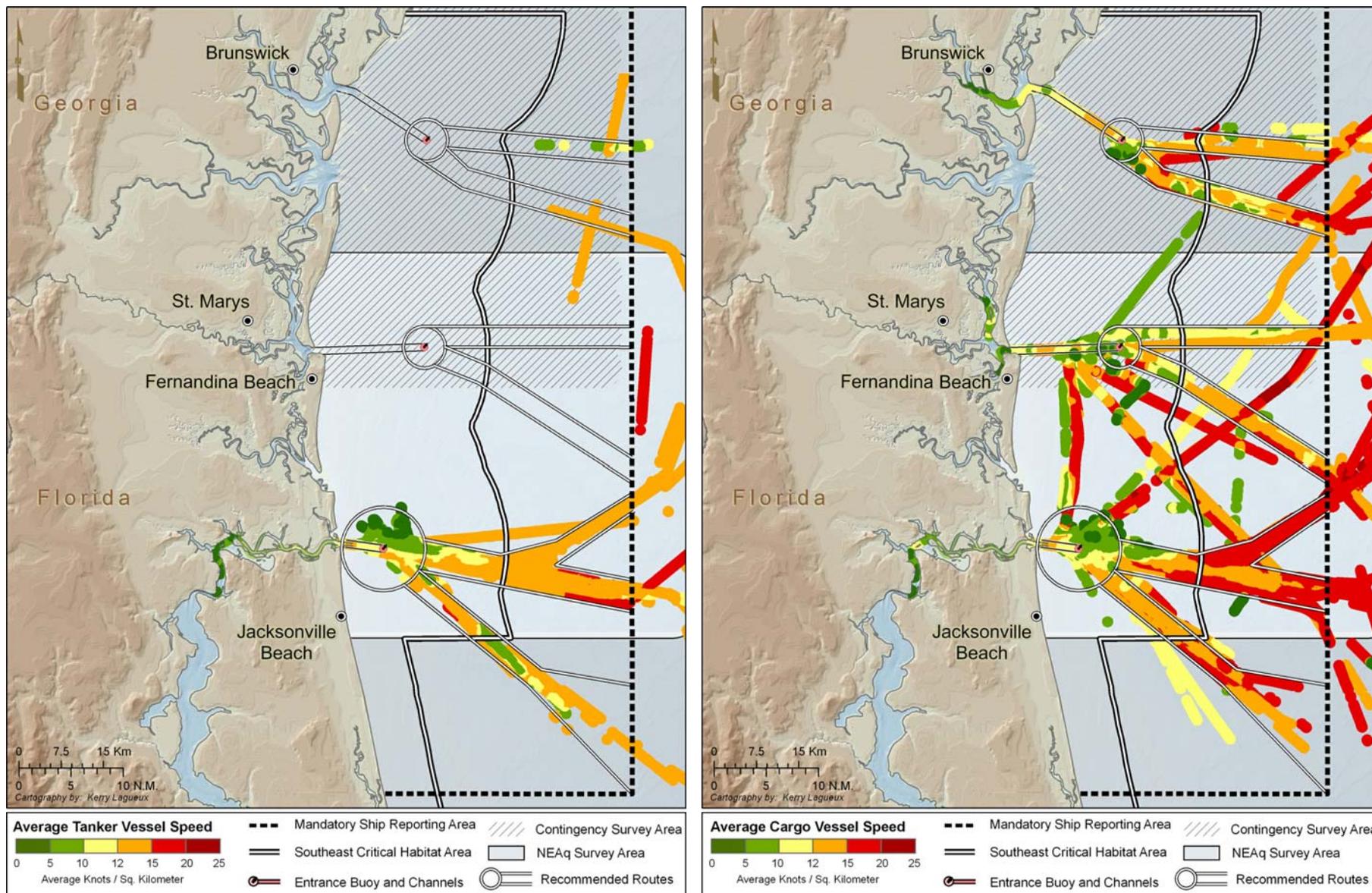


Figure 13. Average Commercial Shipping Traffic Speed in the Central EWS 2008. Tanker vs. Cargo. Projected in Universe Transverse Mercator, Zone 17, using North American Datum 1983.

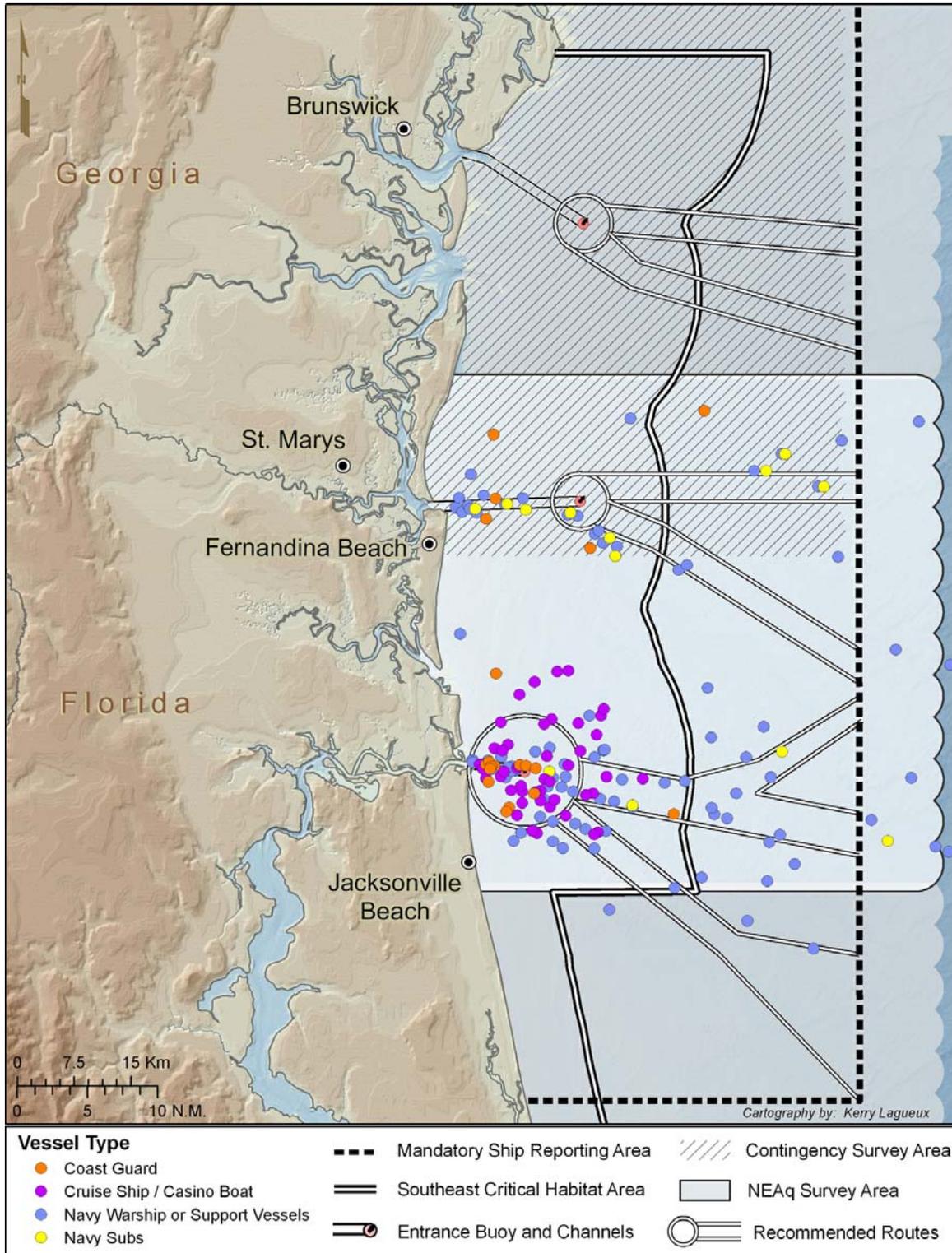


Figure 14. Ship traffic (not required to carry AIS) recorded visually by the Central EWS survey team. Projected in Universe Transverse Mercator, Zone 17, using North American Datum 1983.

Table 5. "Close Call" Vessel/Whale Events in the Central EWS 2008.

| Date | Latitude/ Longitude (of the whale) | Origin or Destination of Vessel | Number of Whales | Vessel Type and size (ft) | Communication | Closest Distance (estimated) | Vessels Action/ Whales Reaction |
|-----------|------------------------------------|--------------------------------------|------------------|----------------------------------|--|------------------------------|--|
| 14-Dec-07 | 30.39365 -81.17597 | Inbound the St. Johns River Entrance | 2 | 21-24ft. Recreational Boat | N/A | ~ 100 meters | Vessel was inbound for the St John at a slow speed. It appeared the vessel sighted the whales and altered course to get closer. The vessel moved in a parallel direction and motored along side whales. The vessel left soon after because of whale behavior made staying with it difficult. /Whales avoided vessel. |
| 14-Dec-07 | 30.39365 -81.17597 | Inbound for Naval Station Mayport | 2 | Navy Warship 99 | Yes, Marine VHF Ch. 16 and switched to working channel 10. | ~ 0.25 nm | The warship was moving slowly at the time of the sighting. Warship altered its course to avoid whales position once contacted by survey team./ No apparent behavior change for the whales. |
| 19-Dec-07 | 30.76783 -81.34451 | Homeport: Fernandina Beach, FL | 4 | Commercial Fishing (Shrimp boat) | N/A | ~ 1-2 meters | The vessel was not engaged in fishing at the time and nets were not in the water. Vessel continued on course with not alteration or speed change./Two whales had no reaction, one whale reacted but only when the vessel was less than a few meters away and the fourth whales reaction is unknown. |
| 28-Dec-08 | 30.32505 -81.2023 | Inbound St. Johns River Entrance | 3 | Recreational Vessel | Communication attempted on Marine VHF Ch. 16 but vessel did not respond. | ~ 200 meters | One whale was lobtailing when the vessel approached./The whale stopped lobtailing once the vessel approached within 200 meters. |
| 10-Jan-08 | 30.59075 -81.31651 | Working St. Marys River Entrance | 2 | Hopper Dredge | Dredge was hailed on Marine VHF and position of whales was reported. The dredge acknowledged the whale position. | 250 meters* | There was no visual change in the whales behavior./ The dredge reduced speed from 10 knots to 5 knots* but did not alter course. |
| 07-Feb-08 | 30.34253 -81.20372 | Inbound St. Johns River Entrance | 1 | Tanker | Yes, Marine VHF Ch. 16 | 0.9 nm* | The tanker altered its course/The whale had been breaching and then stopped but began flipper slapping as the tanker approached. . |
| 09-Feb-08 | 30.38693 -81.2248 | Outbound St. Johns River Entrance | 1 | Recreational Vessel | The vessel was hailed three times but no contact was achieved. | ~ 200 meters | The vessel appeared to notice the whale once it got close and slowed down and stopped to watch before the whale dove./The whale dove |

Table 5. "Close Call" Vessel/Whale Events in the Central EWS 2008.

| | | | | | | | |
|------------------|-----------------------|--|--------------|---------------------|--|------------------|---|
| 14-Feb-08 | 30.3335 -81.1308 | N/A | 2 (M/C pair) | Recreational Vessel | The vessel was hailed four times but no contact was achieved. | ~ 100 meters | The vessel passed the whales at approx 100 meters and never slowed or altered course/ Whales had no apparent change in behavior. Whales were nursing before and after the vessel passed. |
| 16-Feb-08 | 30.65 -81.43 | Homeport: Fernandina Beach, FL | 2 (M/C pair) | Recreational Vessel | The vessel was hailed three times but no contact was achieved. | ~ 10-20 meters | Vessel reached the whales location and began to circle the whales position for approximately 20 minutes./ Calf was rolling at the surface before the vessel approached. After the vessel arrived the mom would head lift and sink. The whales direction kept changing but the vessel would follow. This case was forwarded to NOAA Law Enforcement. |
| 24-Feb-08 | 30.8148 -80.95437 | Inbound for the St. Marys River Entrance | 2 | Cargo Ship | The vessel was hailed on Marine VHF ch. 16. And acknowledged whales reported position. | ~ 0.5nm - 1.0 nm | The vessel altered course/no apparent behavior change for the whales. |
| 01-Mar-08 | 30.62895 -81.12833 | N/A | 2 (M/C pair) | Tug and Barge | The vessel was hailed on Marine VHF ch. 16. And acknowledged whales reported position. | 1.25 nm* | The tug and barge altered its course after radio communication with the survey plane./ No apparent behavior change for the whales. |

*Data from AIS

Mortalities and Injuries

Mortalities and injuries that either occurred during the 2008 season or were first documented during the 2008 are summarized below. Mortalities and injuries are broken down into three sections; entanglements, injury and mortality. Table 6 summarizes mortality and injury events during the 2008 season.

Entanglement:

During the 2008 season, EWS survey teams documented two right whales as being entangled. One whale was previously documented as entangled and one was a new entanglement.

On January 29, 2008, a right whale was documented by the Central EWS survey team entangled. The animal had rope through the mouth and trailing along both sides of the animal with extensive scarring (but no gear) around the peduncle. The entangled whale was later identified as #3333, a 5-year old male. The survey team alerted first responder teams before being relieved by the Southern EWS survey team. Unfortunately, the whale was not relocated by the first responders therefore no disentanglement effort was attempted. The whale was later sighted off the coast of Georgia on February 3, 2008 by the Northern EWS team but this time the whale was sighted too far offshore to mount an on-water response.

On February 2, 2008, right whale #3346 was sighted by the Central EWS survey team. Right whale #3346 was first documented entangled off the coast of St. Augustine, FL, in 2004. The animal had multiple body and flipper wraps. It was partially disentangled and has been documented each winter in the SEUS since that time with rope still remaining on his flipper. The whale was sighted on numerous occasions by each of the three EWS survey teams and each team provided photographic documentation of the whale and its current entanglement. No disentanglement attempt was made on this animal as it is listed as a case to monitor (document and photograph) by the Atlantic Large Whale Disentanglement Network, Provincetown Center for Coastal Studies.

Injury:

On January 29, 2008, the Central EWS survey team document a whale that appeared to have had extensive scarring and wounds on it head, back, peduncle, fluke and chin (figure 15). The whale was later identified as #3530, a male of unknown age. The New England Aquarium confirmed that #3530 had last been sighted by a NMFS survey off the coast of New England on December 19, 2007. The type of wounds and scarring documented indicate this whale had been badly entangled but became free of the entangling gear. Right whale #3530 was documented on numerous occasions during the 2008 season by both by the Central EWS survey team and by on water first response teams.



Photo: Kara Mahoney/New England Aquarium

Figure 15: Right Whale #3530 was first documented with extensive wounds on January 29, 2008 by the Central EWS team.

Other Mortalities:

On December 5, 2007 the Central EWS team documented right whale #1301 with a calf. Right whale #1301 is a 25-year old female and has had four calves (including the December 5, 2007 calf). On December 18, 2007, #1301 was again documented by the Central EWS team but was without her calf. Subsequently she was documented a number of times in the SEUS in 2008 and in Cape Cod Bay in the spring of 2008 without her calf. Sometime between December 5 and December 18, 2007 #1301 lost her calf and a carcass was never found and causes for this loss are unknown.

On January 25, 2008 a male right whale calf carcass washed up on Ormond Beach, FL. The calf died of natural causes and the identification of it's mother is unknown.

On February 8, 2008 right whale #3180 was documented with a calf by the Northern EWS team. Right whale #3180 is a seven-year old female and this was her first calf. She was documented again on February 14, 2008 without her calf.

On February 15, 2008 a male right whale calf was found on Huguenot State Park, Jacksonville, FL. The calf died of natural causes and it is unclear if this could be the carcass of #3180's calf.

Table 6. Entanglement, Injury and Mortality.

Entanglements

| Date | Event | Fatal | Right Whale | Sex | Age | Notes |
|-------------|---|--------------|--------------------|------------|------------|--|
| 29-Jan-08 | First documentation of Entanglement | N/A | #3333 | M | 5 | Appears to be gear free in May 2008 sightings in Great South Channel, MA |
| 02-Feb-08 | First SEUS 2008 sightings of #3346 "Kingfisher" | N/A | #3346 | M | 5 | Known Entanglement |

Injury

| Date | Event | Fatal | Right Whale | Sex | Age | Notes |
|-------------|-------------------------------|--------------|--------------------|------------|------------|---|
| 29-Jan-08 | First Documentation of Injury | N/A | #3530 | M | U | Whale last seen April in Cape Cod Bay, MA |

Other Mortality

| Date | Event | Fatal | Right Whale | Sex | Age | Notes |
|-------------|--------------|--------------|--------------------|------------|------------|---|
| 18-Dec-07 | Loss of Calf | Yes | 2008 Calf of #1301 | Unknown | Calf | Lost calf sometime between 12/5 and 12/18 |
| 25-Jan-08 | Dead Calf | Yes | Unknown | M | Calf | Carcass on Ormond Beach, FL |
| 14-Feb-08 | Loss of Calf | Yes | 2008 Calf of #3180 | Unknown | Calf | Lost calf sometime between 2/8 and 2/14 |
| 15-Feb-08 | Dead Calf | Yes | Unknown* | M | Calf | Carcass on Huguenot Beach, Jacksonville, FL |

* It is possible that the calf found on Huguenot Beach is the 2008 calf of 3180

Discussion

The coastal waters of the Florida and Georgia and possibly the Carolinas are currently the only known calving ground for the North Atlantic right whale. For nearly 15 years there has been extensive survey effort in the heart of the calving ground (Georgia and Florida) in the form of Early Warning System (EWS) surveys. Originally, the EWS surveys were designed to reduce the potential for ship strikes in the calving ground. However, over the past 14 years, in addition to the main objective of the EWS, these surveys have contributed thousands of photo-documented right whale sightings. These data play an integral role in the understanding of habitat use, demographics and reproductive levels.

Using contributed data from all survey groups; identification of all right whales photographed in the southeast in 2008 is currently being conducted. These data provide a better understanding of how the critical habitat and adjacent areas in the SEUS are being utilized by the population throughout the winter. At least 18 of the known 20 M/C pairs are known to have been in the EWS survey area. Of the 18 M/C pairs observed, three (17%) had previously calved in 2006 (although in all three cases, their 2006 calves died within months after their birth), seven (39%) had previously calved in 2005, two (11%) had previously calved in 2004 and six (33%) had never calved before. Of the 12 females with multiple calvings, only two (11%) had a calving interval higher than 3 years (4 years). The Central EWS teams documented 17 (85%) of the 20 known M/C pairs. The mean calving interval using preliminary, contributed data for all known M/C pairs in all regions in 2008 is 3.0 years, which indicates an improvement when compared to the average documented in the late 1990's. The mean calving interval for this population between 1993-1998 was over 5 years (Kraus et al., 2001) and had increased from a 3.67 year average between 1980-1992 (Knowlton et al., 1994).

Of the 18 mothers documented in the EWS survey area, 12 are of known age ranging from 6 to 26 years of age with a mean of 18.0 years. Of the six females in the EWS survey area that calved for the first time one (17%) was age 11, two (33%) were age 7, one (17%) was age 6 and 2 (33%) were of unknown age. Of the two calving females never documented (with their calf) within the EWS survey area neither are of known age.

Though all the individuals observed in the SEUS have not been identified, preliminary analysis indicates that a large number of non-M/C pairs were juveniles, many of which were involved in surface active groups. Since the Southeast U.S. is not known to be a feeding ground, the presence and the behavior of these non-M/C pairs suggests the habitat may serve another function, at least in some years. The high number of calves born in the past seven years and the documented increase in juvenile presence in the southeast U.S. warrants further exploration to define this additional function of the calving ground.

The teamwork and active participation of many agencies and interests is essential to the effectiveness of these surveys in mitigating collisions with right whales. The ability of the survey teams to alert their ground contact from as far as 30-35 nmi from

shore is the crucial catalyst to this network. Each survey teams' ground contact acknowledges the right whale sighting information from the survey aircraft and initiates many notifications via pagers. U.S. Coast Guard (USCG) Office of Aids to Navigation in Miami transmits right whale sighting information via NAVTEX. The USCG also transmits Notices to Mariners over VHF marine-band radio while the survey teams' ground contact updates the Mandatory Ship Reporting (MSR) System. Simultaneously, the Harbor Pilot Associations at the ports of Jacksonville, Fernandina, Brunswick and Savannah monitor pagers, cell phones, or email for information transmitted by the survey teams or FACSFACJAX and relay this information to ships being piloted to/from their respective ports. This transmission of near-real time data, which propels a chain reaction of alerts and notifications along the coastline of the southeastern U.S., is what distinguishes these aerial surveys as a potentially meaningful conservation tool. Yet, this tool for collision mitigation has limitations on many fronts. First, reduced visibility and weather too severe for survey aircraft to be launched result in numerous days with no survey effort. In turn, near real-time sightings cannot be provided to vessels every day. Second, in order for this effort to be effective, vessel operators must take measures to reduce the risk of a strike from occurring whenever transiting through the calving ground whether sightings are available or not. Third, the information provided to vessels that are outbound from a port in the critical habitat is limited to NAVTEX messages (which provide information every 4 hours) as opposed to the near real-time data provided by the MSR System for incoming vessels. Fourth, the EWS system has not been proven as an effective measure in preventing vessel strikes from smaller, recreational vessels that typically operate at fast speeds.

A review of the mortality and injury data maintained by the New England Aquarium show a total of 79 mortalities and 100 serious injuries documented between 1970 and the present (Knowlton and Kraus 2001; NEAq unpublished data). 28 of the 79 (35%) mortalities were the result of ship strikes and 9 (11%) were caused by entanglement. The remainder were either of unknown cause or neonates. Twenty-nine of the 79 (37%) mortalities have occurred in the southeast region from South Carolina to Texas including 6 ship strikes, 1 entanglement, 4 unknown cause, and 18 calves.

Tracking the geographic area of where an injury interaction from vessel strike or entanglement occurred is harder to discern as the animals are still alive and can swim long distances with their injury. Of the 100 injuries (61 entanglement, 38 vessel strike and 1 unknown), 6 entanglement and 8 vessel strikes were initially documented in the Southeast U.S. At least one of the entanglements and 7 of the vessel strikes were known to have occurred in the Southeast region.

During the 2008 season, no vessel strikes were documented in the SEUS. Until several years pass without any documented strikes and vessel speeds throughout the critical habitat are reduced, all the present efforts need to be continued in order to provide the best chance for mitigating risk.

In conclusion the implementation of a system that is not based on the ability of a survey team to visually locate, on a daily basis, the location of all right whales is needed in the calving ground to protect right whales from vessel collisions. Aerial surveys should be recognized as a tool for collecting data on the distribution and occurrence of right whales but not as a system that can consistently prevent commercial or recreational vessel strikes over an extended period of time. The communication of right whale sightings from the EWS surveys to the shipping community has likely reduced the potential for ship strikes through continuing education and increased awareness of mariners as well as proactive measures taken by some organizations and federal agencies to reduce their risk of striking a whale. Yet, it is not an infallible plan to eliminate vessel strikes to right whales in the southeast U.S. The joint efforts by the survey teams, NMFS, Navy, USCG and ACOE to monitor and implement protective measures in this only known calving ground must continue in order to protect this most vulnerable segment of the population and allow this population to grow and thrive.

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FACSFAC JAX, Naval Air Station Jacksonville went to great lengths to keep the system running efficiently with whale sightings from dredges and military vessels. The U.S. Coast Guard group Mayport and station Brunswick displayed a great willingness to help with the effort, as did the U.S. Army Corps of Engineers, South Atlantic Division and the U.S. Navy. On more than one occasion during the 2008 season the cooperation of the St. Johns Bar pilots and the Cumberland Sound pilots and the Brunswick Bar pilots was invaluable. The assistance of Barb Zoodsma of NOAA Fisheries was greatly appreciated through out the course of the season as well Clay George of Georgia Department of Natural Resources and Tom Pitchford of Florida Conservation Commission (FWRI). The coordination among the various aerial survey teams is of extreme importance and we thank the dedication and support from Tricia Naessig, of Wildlife Trust, and Katie Jackson, of FWRI and their hardworking observers.

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Appendix 1: IMO Carriage Requirement

The 73rd Session of the International Maritime Organization's (IMO) Maritime Safety Committee decided the following ships would be required to carry AIS equipment: All ships of 300 gross tonnage and upwards-engaged on international voyages and cargo ships of 500 gross tonnage and upwards not engaged on international voyages and passenger ships irrespective of size shall be fitted with AIS, as follows:

- Ships constructed on or after 1 July 2002;
- Ships engaged on international voyages constructed before 1 July 2002;
- In the case of passenger ships, not later than 1 July 2003;
- In the case of tankers, not later than the first "safety equipment survey" after 1 July 2003;
- In the case of ships, other than passenger ships and tankers, of 50,000 gross tonnage and upwards, not later than 1 July 2004;
- In the case of ships, other than passenger ships and tankers, of 10,000 gross tonnage and upwards but less than 50,000 gross tonnage, not later than 1 July 2005;
- In the case of ships, other than passenger ships and tankers, of 3,000 gross tonnage and upwards but less than 10,000 gross tonnage, not later than 1 July 2006;
- In the case of ships, other than passenger ships and tankers, of 300 gross tonnage and upwards but less than 3,000 gross tonnage, not later than 1 July 2007; and
- In the case of ships not engaged on international voyages constructed before July 2002.

Source: <http://www.navcen.uscg.gov/marcomms/ais.htm>

The United States Coast Guard also requires AIS on certain vessels not subject to SOLAS.

- Commercial self-propelled vessel 65 feet or greater in VTS areas or on international voyage (not including fishing and passenger vessels) operating on U.S. navigable waters
- Towing vessels 26 feet or greater and 600 horsepower or passenger vessels (150+ passengers) in a VTS area.

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|------------------------|
| 1301 | | 2007 | 12 | 5 | 1120 | A | 30.57763 | 81.37653 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 1301 | 2007 | 12 | 5 | 1120 | B | 30.57763 | 81.37653 | NEA/A | FL | CALF W/MOM, NURS |
| 2790 | | 2007 | 12 | 9 | 1025 | A | 30.84163 | 81.29742 | NEA/A | GA | |
| 3314 | | 2007 | 12 | 9 | 1030 | B | 30.83322 | 81.29622 | NEA/A | GA | BODO |
| 3293 | | 2007 | 12 | 9 | 1030 | C | 30.83322 | 81.29622 | NEA/A | GA | BODO |
| 1243 | | 2007 | 12 | 9 | 1038 | D | 30.83108 | 81.28343 | NEA/A | GA | |
| 2614 | | 2007 | 12 | 14 | 1508 | A | 30.39365 | 81.17597 | NEA/A | FL | NURS, W/YRLG |
| | 2007 Calf of 2614 | 2007 | 12 | 14 | 1508 | B | 30.39365 | 81.17597 | NEA/A | FL | NURS, YRLG W/MOM |
| | | 2007 | 12 | 18 | 1324 | #1 | 30.6585 | 81.20724 | NEA/A | FL | |
| 3314 | | 2007 | 12 | 18 | 1324 | A | 30.6585 | 81.20724 | NEA/A | FL | |
| 3513 | | 2007 | 12 | 18 | 1324 | B | 30.6585 | 81.20724 | NEA/A | FL | |
| 3240 | | 2007 | 12 | 19 | 1013 | A | 30.78497 | 81.3043 | NEA/A | GA | |
| 3314 | | 2007 | 12 | 19 | 1015 | C | 30.76558 | 81.33089 | NEA/A | GA | BOD CNT |
| 3513 | | 2007 | 12 | 19 | 1015 | D | 30.76558 | 81.33089 | NEA/A | GA | BOD CNT |
| | | 2007 | 12 | 19 | 1015 | E | 30.76558 | 81.33089 | NEA/A | GA | BOD CNT |
| 3520 | | 2007 | 12 | 19 | 1027 | B | 30.76525 | 81.32755 | NEA/A | GA | |
| 3314 | | 2007 | 12 | 19 | 1127 | F | 30.76783 | 81.34451 | NEA/A | GA | AGG VSL |
| | | 2007 | 12 | 19 | 1127 | G | 30.76783 | 81.34451 | NEA/A | GA | AGG VSL, BLK BEL, ROLL |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-----------------------------------|
| 3520 | | 2007 | 12 | 19 | 1127 | H | 30.76783 | 81.34451 | NEA/A | GA | AGG VSL |
| 3513 | | 2007 | 12 | 19 | 1127 | I | 30.76783 | 81.34451 | NEA/A | GA | AGG VSL |
| 2753 | | 2007 | 12 | 20 | 0934 | A | 30.28934 | 81.37762 | NEA/A | FL | BOD CNT, BODO, W/CALF |
| | 2008 Calf of 2753 | 2007 | 12 | 20 | 0934 | B | 30.28934 | 81.37762 | NEA/A | FL | BOD CNT, BODO, CALF W/MOM, WH CHN |
| 2790 | | 2007 | 12 | 27 | 1041 | A | 30.32505 | 81.2023 | NEA/A | FL | LBTL |
| 1241 | | 2007 | 12 | 27 | 1041 | B | 30.32505 | 81.2023 | NEA/A | FL | WH CHN |
| 1703 | | 2007 | 12 | 27 | 1041 | C | 30.32505 | 81.2023 | NEA/A | FL | |
| | | 2007 | 12 | 27 | 1127 | D | 30.4845 | 81.19946 | NEA/A | FL | |
| 2790 | | 2007 | 12 | 27 | 1622 | E | 30.27976 | 81.14172 | NEA/A | FL | |
| 3513 | | 2007 | 12 | 28 | 1133 | A | 30.38864 | 81.26646 | NEA/A | FL | BODO |
| 3405 | | 2007 | 12 | 28 | 1133 | B | 30.38864 | 81.26646 | NEA/A | FL | BODO |
| 3292 | | 2007 | 12 | 28 | 1246 | C | 30.83145 | 81.24738 | NEA/A | GA | BODO, RACE |
| | | 2007 | 12 | 28 | 1335 | D | 30.78217 | 81.38474 | NEA/A | GA | BODO |
| 1301 | | 2007 | 12 | 28 | 1343 | E | 30.77712 | 81.3718 | NEA/A | GA | |
| 3513 | | 2007 | 12 | 29 | 1314 | A | 30.76798 | 81.32632 | NEA/A | GA | LOG |
| 3405 | | 2007 | 12 | 29 | 1314 | B | 30.76798 | 81.32632 | NEA/A | GA | LOG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------|
| 1301 | | 2007 | 12 | 29 | 1359 | C | 30.5593 | 81.3586 | NEA/A | FL | LOG |
| | 2007 Calf of 3360 | 2007 | 12 | 29 | 1406 | D | 30.52225 | 81.25924 | NEA/A | FL | ROLL, YRLG W/MOM |
| 3360 | | 2007 | 12 | 29 | 1406 | E | 30.52225 | 81.25924 | NEA/A | FL | W/YRLG |
| | 2006 Calf of 1946 | 2007 | 12 | 29 | 1500 | F | 30.34867 | 81.3111 | NEA/A | FL | |
| 3520 | | 2007 | 12 | 29 | 1500 | G | 30.34867 | 81.3111 | NEA/A | FL | |
| 3292 | | 2007 | 12 | 30 | 1214 | A | 30.66714 | 81.34372 | NEA/A | FL | W/CALF |
| | 2008 Calf of 3292 | 2007 | 12 | 30 | 1214 | B | 30.66714 | 81.34372 | NEA/A | FL | |
| 3520 | | 2007 | 12 | 30 | 1244 | C | 30.69162 | 81.25671 | NEA/A | FL | |
| | 2006 Calf of 1946 | 2007 | 12 | 30 | 1244 | D | 30.69162 | 81.25671 | NEA/A | FL | |
| 3430 | | 2008 | 1 | 1 | 1057 | A | 30.63618 | 81.2845 | NEA/A | FL | SAG |
| | | 2008 | 1 | 1 | 1057 | B | 30.63618 | 81.2845 | NEA/A | FL | SAG |
| 3421 | | 2008 | 1 | 1 | 1057 | C | 30.63618 | 81.2845 | NEA/A | FL | SAG |
| 1622 | | 2008 | 1 | 6 | 1129 | A | 30.42867 | 81.39648 | NEA/A | FL | BOD CNT, BODO, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 6 | 1129 | B | 30.42867 | 81.39648 | NEA/A | FL | BOD CNT, BODO, CALF W/MOM |
| 2042 | | 2008 | 1 | 6 | 1224 | C | 30.4069 | 81.30128 | NEA/A | FL | BODO |
| 3103 | | 2008 | 1 | 6 | 1224 | D | 30.4069 | 81.30128 | NEA/A | FL | BODO |
| 1622 | | 2008 | 1 | 7 | 1044 | A | 30.5505 | 81.43739 | NEA/A | FL | BOD CNT, W/CALF |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------------|
| | 2008 Calf of 1622 | 2008 | 1 | 7 | 1044 | B | 30.5505 | 81.43739 | NEA/A | FL | BOD CNT, CALF W/MOM |
| | 2007 Calf of 2645 | 2008 | 1 | 7 | 1052 | C | 30.67063 | 81.42788 | NEA/A | FL | BODO, FLIP |
| 3292 | | 2008 | 1 | 7 | 1256 | D | 30.28463 | 81.24814 | NEA/A | FL | W/CALF |
| | 2008 Calf of 3292 | 2008 | 1 | 7 | 1256 | E | 30.28463 | 81.24814 | NEA/A | FL | CALF W/MOM |
| 1622 | | 2008 | 1 | 7 | 1402 | F | 30.57427 | 81.43513 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 7 | 1402 | G | 30.57427 | 81.43513 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 3142 | | 2008 | 1 | 7 | 1545 | H | 30.62488 | 81.29194 | NEA/A | FL | BODO, WH CHN |
| 3240 | | 2008 | 1 | 7 | 1545 | I | 30.62488 | 81.29194 | NEA/A | FL | BODO |
| 1622 | | 2008 | 1 | 8 | 1056 | A | 30.53625 | 81.43117 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 8 | 1056 | B | 30.53625 | 81.43117 | NEA/A | FL | BOD CNT, CALF W/MOM, ROLL |
| 1622 | | 2008 | 1 | 8 | 1249 | C | 30.5285 | 81.40962 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 8 | 1249 | D | 30.5285 | 81.40962 | NEA/A | FL | CALF W/MOM, NURS |
| 3293 | | 2008 | 1 | 8 | 1511 | E | 30.2397 | 81.22865 | NEA/A | FL | BODO |
| 1802 | | 2008 | 1 | 8 | 1604 | F | 30.37175 | 81.29099 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1802 | 2008 | 1 | 8 | 1604 | G | 30.37175 | 81.29009 | NEA/A | FL | CALF W/MOM, POST |
| 1622 | | 2008 | 1 | 9 | 0944 | A | 30.70743 | 81.33286 | NEA/A | FL | BOD CNT, BODO, NURS, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 9 | 0944 | B | 30.70743 | 81.33286 | NEA/A | FL | BOD CNT, BODO, CALF W/MOM, NURS |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------|
| 3293 | | 2008 | 1 | 9 | 1114 | C | 30.71298 | 81.26185 | NEA/A | GA | |
| 1622 | | 2008 | 1 | 9 | 1153 | D | 30.72848 | 81.32583 | NEA/A | GA | CHN BRCH, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 9 | 1153 | E | 30.72848 | 81.32583 | NEA/A | GA | CALF W/MOM |
| 2753 | | 2008 | 1 | 9 | 1215 | F | 30.38934 | 81.37402 | NEA/A | FL | W/CALF |
| | 2008 Calf of 2753 | 2008 | 1 | 9 | 1215 | G | 30.38934 | 81.37402 | NEA/A | FL | CALF W/MOM |
| 2753 | | 2008 | 1 | 9 | 1449 | H | 30.37533 | 81.36985 | NEA/A | FL | W/CALF |
| | 2008 Calf of 2753 | 2008 | 1 | 9 | 1449 | I | 30.37533 | 81.36985 | NEA/A | FL | CALF W/MOM |
| 1622 | | 2008 | 1 | 10 | 1052 | A | 30.70895 | 81.20027 | NEA/A | GA | BOD CNT, BODO, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 10 | 1052 | B | 30.70895 | 81.40047 | NEA/A | GA | BOD CNT, BODO, CALF W/MOM |
| 2753 | | 2008 | 1 | 10 | 1117 | C | 30.3091 | 81.37777 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 2753 | 2008 | 1 | 10 | 1117 | D | 30.3091 | 81.37777 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 3142 | | 2008 | 1 | 10 | 1259 | E | 30.59075 | 81.31651 | NEA/A | FL | BODO |
| 3240 | | 2008 | 1 | 10 | 1259 | F | 30.59075 | 81.31651 | NEA/A | FL | BODO |
| 1622 | | 2008 | 1 | 11 | 0910 | A | 30.58503 | 81.44055 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1622 | 2008 | 1 | 11 | 0910 | B | 30.58503 | 81.44055 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 2790 | | 2008 | 1 | 11 | 1608 | C | 30.29322 | 81.14905 | NEA/A | FL | |
| 1703 | | 2008 | 1 | 11 | 1608 | D | 30.29322 | 81.14905 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------|
| | | 2008 | 1 | 14 | 1125 | A | 30.48855 | 81.3605 | NEA/A | FL | SAG |
| | 2006 Calf of 1946 | 2008 | 1 | 14 | 1125 | B | 30.48855 | 81.3605 | NEA/A | FL | SAG |
| 3550 | | 2008 | 1 | 14 | 1125 | C | 30.48855 | 81.3605 | NEA/A | FL | SAG |
| | BK03BOF07 | 2008 | 1 | 14 | 1125 | D | 30.48855 | 81.3605 | NEA/A | FL | SAG |
| 3545 | | 2008 | 1 | 15 | 1059 | A | 30.54955 | 81.26733 | NEA/A | FL | SAG |
| 3405 | | 2008 | 1 | 15 | 1059 | B | 30.54955 | 81.26733 | NEA/A | FL | SAG |
| | | 2008 | 1 | 15 | 1059 | C | 30.54955 | 81.26733 | NEA/A | FL | SAG |
| 3550 | | 2008 | 1 | 15 | 1059 | D | 30.54955 | 81.26733 | NEA/A | FL | SAG |
| 3314 | | 2008 | 1 | 15 | 1105 | E | 30.54838 | 81.26103 | NEA/A | FL | |
| | | 2008 | 1 | 15 | 1105 | F | 30.54838 | 81.26103 | NEA/A | FL | |
| | | 2008 | 1 | 15 | 1105 | G | 30.54838 | 81.26103 | NEA/A | FL | |
| | | 2008 | 1 | 15 | 1105 | H | 30.54838 | 81.26103 | NEA/A | FL | |
| 1243 | | 2008 | 1 | 15 | 1244 | I | 30.76803 | 81.39986 | NEA/A | GA | BEL UP, W/CALF |
| | 2008 Calf of 1243 | 2008 | 1 | 15 | 1244 | J | 30.76803 | 81.39986 | NEA/A | GA | CALF W/MOM |
| 3180 | | 2008 | 1 | 22 | 1035 | A | 31.03657 | 81.0503 | NEA/A | GA | |
| 1703 | | 2008 | 1 | 22 | 1048 | B | 30.958 | 81.02905 | NEA/A | GA | BRCH, MOPN |
| 3293 | | 2008 | 1 | 24 | 1133 | A | 30.5357 | 81.2661 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 3293 | 2008 | 1 | 24 | 1133 | B | 30.5357 | 81.2661 | NEA/A | FL | BOD CNT, CALF W/MOM |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-------------|
| | BK01CCB08 | 2008 | 1 | 24 | 1205 | C | 30.52893 | 81.13815 | NEA/A | FL | SAG |
| 3423 | | 2008 | 1 | 24 | 1205 | D | 30.52893 | 81.13815 | NEA/A | FL | SAG |
| | | 2008 | 1 | 24 | 1205 | E | 30.52893 | 81.13815 | NEA/A | FL | |
| | BK03BOF07 | 2008 | 1 | 24 | 1205 | F | 30.52893 | 81.13815 | NEA/A | FL | |
| 3103 | | 2008 | 1 | 24 | 1325 | G | 30.5775 | 81.21413 | NEA/A | FL | LOG |
| 2042 | | 2008 | 1 | 24 | 1325 | H | 30.5775 | 81.21413 | NEA/A | FL | LOG |
| | | 2008 | 1 | 24 | 1332 | I | 30.51597 | 81.108 | NEA/A | FL | LBTL |
| | BK03BOF07 | 2008 | 1 | 24 | 1338 | J | 30.53143 | 81.10347 | NEA/A | FL | |
| 3423 | | 2008 | 1 | 24 | 1338 | K | 30.53143 | 81.10347 | NEA/A | FL | SAG |
| | | 2008 | 1 | 24 | 1338 | L | 30.53143 | 81.10347 | NEA/A | FL | SAG |
| | BK01CCB08 | 2008 | 1 | 24 | 1338 | M | 30.53143 | 81.10347 | NEA/A | FL | SAG |
| 2920 | | 2008 | 1 | 24 | 1430 | #1 | 30.45192 | 81.13289 | NEA/A | FL | SAG |
| 3579 | | 2008 | 1 | 24 | 1430 | N | 30.45192 | 81.13289 | NEA/A | FL | APPR |
| 3540 | | 2008 | 1 | 24 | 1430 | O | 30.45192 | 81.13289 | NEA/A | FL | |
| 3460 | | 2008 | 1 | 24 | 1430 | P | 30.45192 | 81.13289 | NEA/A | FL | SAG |
| 3541 | | 2008 | 1 | 24 | 1430 | Q | 30.45192 | 81.13289 | NEA/A | FL | |
| | | 2008 | 1 | 24 | 1430 | R | 30.45192 | 81.13289 | NEA/A | FL | SAG |
| 3623 | | 2008 | 1 | 24 | 1430 | S | 30.45192 | 81.13289 | NEA/A | FL | SAG, WH CHN |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-----------|
| | | 2008 | 1 | 24 | 1430 | U | 30.45192 | 81.13289 | NEA/A | FL | |
| | | 2008 | 1 | 24 | 1430 | V | 30.45192 | 81.13289 | NEA/A | FL | SAG |
| 3294 | | 2008 | 1 | 24 | 1509 | W | 30.38323 | 81.21932 | NEA/A | FL | |
| | | 2008 | 1 | 28 | 1006 | A | 30.74337 | 81.19024 | NEA/A | GA | BODO |
| | | 2008 | 1 | 28 | 1018 | B | 30.74185 | 81.19014 | NEA/A | GA | BODO, SAG |
| 3623 | | 2008 | 1 | 28 | 1018 | C | 30.74185 | 81.19014 | NEA/A | GA | BODO, SAG |
| 3540 | | 2008 | 1 | 28 | 1018 | D | 30.74185 | 81.19014 | NEA/A | GA | BODO, SAG |
| | SE07BK08 | 2008 | 1 | 28 | 1018 | E | 30.74185 | 81.19014 | NEA/A | GA | BODO, SAG |
| | | 2008 | 1 | 28 | 1033 | F | 30.75022 | 81.18185 | NEA/A | GA | |
| 3460 | | 2008 | 1 | 28 | 1033 | G | 30.75022 | 81.18185 | NEA/A | GA | |
| | | 2008 | 1 | 28 | 1222 | #1 | 30.32056 | 81.16093 | NEA/A | FL | |
| 3541 | | 2008 | 1 | 28 | 1222 | #2 | 30.32056 | 81.16093 | NEA/A | FL | |
| | | 2008 | 1 | 28 | 1222 | H | 30.32302 | 81.1621 | NEA/A | FL | |
| 3230 | | 2008 | 1 | 28 | 1222 | I | 30.32056 | 81.16093 | NEA/A | FL | SAG |
| | | 2008 | 1 | 28 | 1222 | J | 30.32056 | 81.16093 | NEA/A | FL | SAG |
| | | 2008 | 1 | 28 | 1222 | K | 30.32056 | 81.16093 | NEA/A | FL | SAG |
| 1603 | | 2008 | 1 | 28 | 1222 | L | 30.32056 | 81.16093 | NEA/A | FL | SAG |
| | | 2008 | 1 | 28 | 1249 | M | 30.36767 | 81.16222 | NEA/A | FL | W/UNPH EG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|--|
| 2330 | | 2008 | 1 | 28 | 1257 | P | 30.36877 | 81.17495 | NEA/A | FL | W/CALF |
| | 2008 Calf of 2330 | 2008 | 1 | 28 | 1257 | Q | 30.36877 | 81.17495 | NEA/A | FL | CALF W/MOM |
| | | 2008 | 1 | 28 | 1301 | R | 30.37652 | 81.16855 | NEA/A | FL | |
| 3423 | | 2008 | 1 | 29 | 1006 | A | 30.35064 | 81.16495 | NEA/A | FL | SAG |
| 2920 | | 2008 | 1 | 29 | 1006 | B | 30.35064 | 81.16495 | NEA/A | FL | SAG, UW EXH |
| | | 2008 | 1 | 29 | 1006 | C | 30.35064 | 81.16495 | NEA/A | FL | SAG |
| | 2006 CALF of 1611 | 2008 | 1 | 29 | 1022 | D | 30.34332 | 81.16786 | NEA/A | FL | |
| 3530 | | 2008 | 1 | 29 | 1028 | E | 30.35365 | 81.17933 | NEA/A | FL | WH CHN |
| | 2006 CALF of 1611 | 2008 | 1 | 29 | 1047 | F | 30.34781 | 81.17135 | NEA/A | FL | |
| | | 2008 | 1 | 29 | 1137 | G | 30.43352 | 81.23779 | NEA/A | FL | LBTL |
| | | 2008 | 1 | 29 | 1137 | H | 30.43352 | 81.23779 | NEA/A | FL | |
| 3603 | | 2008 | 1 | 29 | 1147 | I | 30.44935 | 81.25155 | NEA/A | FL | BEL UP, BEL/BEL, BLK BEL, BLK CHN, BOD CNT |
| 3541 | | 2008 | 1 | 29 | 1147 | J | 30.44935 | 81.25155 | NEA/A | FL | BEL/BEL, BOD CNT, WH BEL, WH CHN |
| | | 2008 | 1 | 29 | 1153 | K | 30.4605 | 81.25372 | NEA/A | FL | LOG |
| | | 2008 | 1 | 29 | 1153 | L | 30.4605 | 81.25372 | NEA/A | FL | LOG |
| 3314 | | 2008 | 1 | 29 | 1227 | #1 | 30.45855 | 81.243 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------------|
| 3333 | | 2008 | 1 | 29 | 1227 | M | 30.45855 | 81.243 | NEA/A | FL | FRST ENTGL |
| 3405 | | 2008 | 1 | 29 | 1227 | N | 30.45855 | 81.243 | NEA/A | FL | |
| 3405 | | 2008 | 1 | 29 | 1309 | #2 | 30.45493 | 81.26028 | NEA/A | FL | SAG |
| | | 2008 | 1 | 29 | 1309 | O | 30.45493 | 81.26028 | NEA/A | FL | SAG |
| 3541 | | 2008 | 1 | 29 | 1309 | P | 30.45493 | 81.26028 | NEA/A | FL | SAG, WH BEL, WH CHN |
| | | 2008 | 1 | 29 | 1309 | Q | 30.45493 | 81.26028 | NEA/A | FL | BEL/BEL, SAG |
| 3603 | | 2008 | 1 | 29 | 1309 | R | 30.45493 | 81.26028 | NEA/A | FL | BEL UP, BLK BEL, BLK CHN, SAG |
| 3142 | | 2008 | 1 | 29 | 1659 | S | 30.59682 | 81.34824 | NEA/A | FL | WH CHN |
| 3240 | | 2008 | 1 | 29 | 1659 | T | 30.59682 | 81.34824 | NEA/A | FL | |
| 1802 | | 2008 | 1 | 31 | 1001 | A | 30.41802 | 81.157 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1802 | 2008 | 1 | 31 | 1001 | B | 30.41802 | 81.157 | NEA/A | FL | BOD CNT, BRCH, CALF W/MOM, ROLL |
| 3293 | | 2008 | 1 | 31 | 1017 | C | 30.43415 | 81.14481 | NEA/A | FL | BOD CNT, NURS, W/CALF |
| | 2008 Calf of 3293 | 2008 | 1 | 31 | 1017 | D | 30.43415 | 81.14481 | NEA/A | FL | BOD CNT, CALF W/MOM, NURS |
| 3130 | | 2008 | 1 | 31 | 1222 | E | 30.34113 | 81.28863 | NEA/A | FL | BOD CNT, BODO, W/CALF |
| | 2008 Calf of 3130 | 2008 | 1 | 31 | 1222 | F | 30.34113 | 81.28863 | NEA/A | FL | BOD CNT, BODO, CALF W/MOM |
| 2330 | | 2008 | 1 | 31 | 1459 | G | 30.6184 | 81.17823 | NEA/A | FL | BOD CNT, W/CALF |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------|
| | 2008 Calf of 2330 | 2008 | 1 | 31 | 1459 | H | 30.6184 | 81.17823 | NEA/A | FL | BOD CNT, CALF W/MOM, ROLL |
| 2753 | | 2008 | 2 | 2 | 1000 | A | 30.35967 | 81.36743 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 2753 | 2008 | 2 | 2 | 1000 | B | 30.35967 | 81.36743 | NEA/A | FL | |
| 3530 | | 2008 | 2 | 2 | 1358 | C | 30.83675 | 81.04781 | NEA/A | GA | |
| | | 2008 | 2 | 2 | 1358 | D | 30.83675 | 81.04781 | NEA/A | GA | |
| 3623 | | 2008 | 2 | 2 | 1358 | E | 30.83675 | 81.04781 | NEA/A | GA | |
| | 2006 CALF of 1611 | 2008 | 2 | 2 | 1359 | F | 30.83737 | 81.05267 | NEA/A | GA | SAG |
| | | 2008 | 2 | 2 | 1359 | G | 30.83737 | 81.05267 | NEA/A | GA | SAG |
| 2920 | | 2008 | 2 | 2 | 1359 | H | 30.83737 | 81.05267 | NEA/A | GA | SAG |
| 3346 | | 2008 | 2 | 2 | 1434 | I | 30.83765 | 81.05614 | NEA/A | GA | ENTGL |
| | BK01CCB08 | 2008 | 2 | 2 | 1434 | J | 30.83765 | 81.05614 | NEA/A | GA | |
| 3460 | | 2008 | 2 | 2 | 1437 | K | 30.85232 | 81.0528 | NEA/A | GA | |
| 1308 | | 2008 | 2 | 3 | 0916 | A | 30.50143 | 81.2998 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1308 | 2008 | 2 | 3 | 0916 | B | 30.50143 | 81.2998 | NEA/A | FL | CALF W/MOM |
| | | 2008 | 2 | 3 | 1027 | C | 30.74018 | 81.1235 | NEA/A | GA | |
| 3230 | | 2008 | 2 | 3 | 1032 | D | 30.71203 | 81.092 | NEA/A | GA | BEL/BEL, BOD CNT, LBTL |
| | | 2008 | 2 | 3 | 1032 | E | 30.71203 | 81.092 | NEA/A | GA | BEL/BEL, BOD CNT |
| | | 2008 | 2 | 3 | 1115 | #1 | 30.66672 | 81.1426 | NEA/A | FL | BODO, SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|------------------|
| | BK03BOF07 | 2008 | 2 | 3 | 1115 | F | 30.66672 | 81.1426 | NEA/A | FL | BODO, SAG |
| 3310 | | 2008 | 2 | 3 | 1115 | G | 30.66672 | 81.1426 | NEA/A | FL | BODO, SAG |
| | | 2008 | 2 | 3 | 1115 | H | 30.66672 | 81.1426 | NEA/A | FL | BODO, SAG |
| | | 2008 | 2 | 3 | 1115 | I | 30.66672 | 81.1426 | NEA/A | FL | BODO, SAG |
| 3346 | | 2008 | 2 | 3 | 1115 | J | 30.66672 | 81.1426 | NEA/A | FL | BODO, ENTGL, SAG |
| 3541 | | 2008 | 2 | 3 | 1115 | K | 30.66672 | 81.1426 | NEA/A | FL | BODO, SAG |
| | | 2008 | 2 | 3 | 1127 | L | 30.66263 | 81.1509 | NEA/A | FL | BOD CNT, BODO |
| | | 2008 | 2 | 3 | 1127 | M | 30.66263 | 81.1509 | NEA/A | FL | BOD CNT, BODO |
| | BK01CCB08 | 2008 | 2 | 3 | 1147 | N | 30.66644 | 81.1359 | NEA/A | FL | |
| | | 2008 | 2 | 3 | 1207 | O | 30.62468 | 81.1582 | NEA/A | FL | |
| 2920 | | 2008 | 2 | 3 | 1233 | P | 30.59185 | 81.2212 | NEA/A | FL | LBTL |
| | 2006 CALF of 1611 | 2008 | 2 | 3 | 1257 | Q | 30.57903 | 81.2308 | NEA/A | FL | |
| | 2006 Calf of 1946 | 2008 | 2 | 3 | 1259 | R | 30.59299 | 81.2231 | NEA/A | FL | BODO, SAG |
| | | 2008 | 2 | 3 | 1259 | S | 30.59299 | 81.2231 | NEA/A | FL | BODO, SAG |
| | 2006 CALF of 1611 | 2008 | 2 | 3 | 1259 | T | 30.59299 | 81.2231 | NEA/A | FL | BODO, SAG |
| 3530 | | 2008 | 2 | 3 | 1303 | U | 30.59803 | 81.2055 | NEA/A | FL | SAG |
| | | 2008 | 2 | 3 | 1303 | V | 30.59803 | 81.2055 | NEA/A | FL | SAG |
| | CT01SEUS05 | 2008 | 2 | 3 | 1303 | W | 30.59803 | 81.2055 | NEA/A | FL | SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------|
| 2920 | | 2008 | 2 | 3 | 1303 | X | 30.59803 | 81.2055 | NEA/A | FL | SAG |
| 1308 | | 2008 | 2 | 3 | 1432 | Y | 30.53175 | 81.3504 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1308 | 2008 | 2 | 3 | 1432 | Z | 30.53175 | 81.3504 | NEA/A | FL | CALF W/MOM |
| 3123 | | 2008 | 2 | 3 | 1448 | AA | 30.52179 | 81.2956 | NEA/A | FL | |
| 3142 | | 2008 | 2 | 3 | 1506 | BB | 30.55637 | 81.3076 | NEA/A | FL | |
| 3240 | | 2008 | 2 | 3 | 1506 | CC | 30.55637 | 81.3076 | NEA/A | FL | |
| 1802 | | 2008 | 2 | 3 | 1527 | DD | 30.48348 | 81.2165 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1802 | 2008 | 2 | 3 | 1527 | EE | 30.48348 | 81.2165 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 3130 | | 2008 | 2 | 3 | 1543 | FF | 30.42267 | 81.2349 | NEA/A | FL | W/CALF |
| | 2008 Calf of 3130 | 2008 | 2 | 3 | 1543 | GG | 30.42267 | 81.2349 | NEA/A | FL | CALF W/MOM |
| 3103 | | 2008 | 2 | 5 | 1346 | A | 30.3542 | 81.30439 | NEA/A | FL | WH CHN |
| 2042 | | 2008 | 2 | 5 | 1346 | B | 30.3542 | 81.30439 | NEA/A | FL | |
| | BK57 | 2008 | 2 | 5 | 1443 | C | 30.47827 | 81.19095 | NEA/A | FL | |
| 1243 | | 2008 | 2 | 5 | 1450 | D | 30.47498 | 81.21125 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 5 | 1450 | E | 30.47498 | 81.21125 | NEA/A | FL | CALF W/MOM |
| | CT01SEUS05 | 2008 | 2 | 5 | 1523 | F | 30.55572 | 81.321 | NEA/A | FL | |
| 3460 | | 2008 | 2 | 5 | 1534 | #1 | 30.55774 | 81.32115 | NEA/A | FL | SAG |
| | BK01CCB08 | 2008 | 2 | 5 | 1534 | G | 30.55774 | 81.32115 | NEA/A | FL | SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|----------------------|
| 2920 | | 2008 | 2 | 5 | 1534 | H | 30.55774 | 81.32115 | NEA/A | FL | SAG |
| | | 2008 | 2 | 5 | 1534 | I | 30.55774 | 81.32115 | NEA/A | FL | SAG |
| 2427 | | 2008 | 2 | 5 | 1534 | J | 30.55774 | 81.3215 | NEA/A | FL | SAG |
| | | 2008 | 2 | 5 | 1534 | K | 30.55774 | 81.32115 | NEA/A | FL | SAG |
| | BK03BOF07 | 2008 | 2 | 5 | 1534 | L | 30.55774 | 81.32115 | NEA/A | FL | APPR, SAG |
| | | 2008 | 2 | 5 | 1534 | M | 30.55774 | 81.32115 | NEA/A | FL | SAG |
| | | 2008 | 2 | 5 | 1534 | N | 30.55774 | 81.32115 | NEA/A | FL | SAG |
| | | 2008 | 2 | 5 | 1539 | O | 30.55472 | 81.31473 | NEA/A | FL | |
| | 2007 Calf of 2614 | 2008 | 2 | 5 | 1546 | P | 30.53753 | 81.31859 | NEA/A | FL | SAG |
| | 2006 Calf of 2503 | 2008 | 2 | 5 | 1546 | Q | 30.53753 | 81.31859 | NEA/A | FL | SAG |
| | | 2008 | 2 | 5 | 1546 | R | 30.53753 | 81.31859 | NEA/A | FL | SAG |
| 3330 | | 2008 | 2 | 5 | 1547 | S | 30.54248 | 81.30528 | NEA/A | FL | |
| | | 2008 | 2 | 5 | 1622 | T | 30.63103 | 81.16223 | NEA/A | FL | |
| | | 2008 | 2 | 5 | 1647 | U | 30.69383 | 81.21128 | NEA/A | FL | W/UNPH EG |
| | | 2008 | 2 | 5 | 1653 | V | 30.69328 | 81.15125 | NEA/A | FL | APPR, SAG, W/UNPH EG |
| 3294 | | 2008 | 2 | 5 | 1653 | W | 30.69328 | 81.15125 | NEA/A | FL | SAG, W/UNPH EG |
| | | 2008 | 2 | 5 | 1653 | X | 30.69328 | 81.15125 | NEA/A | FL | SAG, W/UNPH EG |
| | BK01BOF07 | 2008 | 2 | 5 | 1701 | AA | 30.72634 | 81.13422 | NEA/A | GA | SAG, W/UNPH EG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|----------------|
| | | 2008 | 2 | 5 | 1701 | BB | 30.72634 | 81.13422 | NEA/A | GA | SAG, W/UNPH EG |
| 3503 | | 2008 | 2 | 5 | 1701 | Z | 30.72634 | 81.13422 | NEA/A | GA | SAG, W/UNPH EG |
| | | 2008 | 2 | 5 | 1720 | DD | 30.79665 | 81.17492 | NEA/A | GA | SAG |
| | | 2008 | 2 | 5 | 1720 | EE | 30.79665 | 81.17492 | NEA/A | GA | SAG |
| 3040 | | 2008 | 2 | 6 | 1144 | A | 30.57307 | 81.24606 | NEA/A | FL | SAG |
| 3540 | | 2008 | 2 | 6 | 1144 | B | 30.57307 | 81.24606 | NEA/A | FL | SAG |
| 2427 | | 2008 | 2 | 6 | 1144 | C | 30.57307 | 81.24606 | NEA/A | FL | SAG |
| 2541 | | 2008 | 2 | 6 | 1144 | D | 30.57307 | 81.24606 | NEA/A | FL | SAG |
| | | 2008 | 2 | 6 | 1144 | E | 30.57307 | 81.24606 | NEA/A | FL | SAG |
| 3579 | | 2008 | 2 | 6 | 1201 | F | 30.5941 | 81.31095 | NEA/A | FL | |
| | | 2008 | 2 | 6 | 1203 | G | 30.58882 | 81.3055 | NEA/A | FL | BODO, BRCH |
| 3330 | | 2008 | 2 | 6 | 1214 | H | 30.59085 | 81.2941 | NEA/A | FL | BODO |
| | 2007 Calf of 2642 | 2008 | 2 | 6 | 1235 | I | 30.599 | 81.37447 | NEA/A | FL | |
| | 2007 Calf of 2614 | 2008 | 2 | 6 | 1238 | J | 30.5906 | 81.35322 | NEA/A | FL | |
| 3411 | | 2008 | 2 | 7 | 0924 | A | 30.58045 | 81.37289 | NEA/A | FL | BODO, SAG |
| | | 2008 | 2 | 7 | 0924 | B | 30.58045 | 81.37289 | NEA/A | FL | BODO, SAG |
| | CT01SEUS05 | 2008 | 2 | 7 | 0924 | C | 30.58045 | 81.37289 | NEA/A | FL | BODO, SAG |
| | | 2008 | 2 | 7 | 0924 | D | 30.58045 | 81.37289 | NEA/A | FL | BODO, SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|----------------------|
| | | 2008 | 2 | 7 | 0924 | E | 30.58045 | 81.37289 | NEA/A | FL | BODO, SAG |
| | | 2008 | 2 | 7 | 0930 | F | 30.58192 | 81.38865 | NEA/A | FL | BODO |
| 3040 | | 2008 | 2 | 7 | 0933 | G | 30.59332 | 81.38918 | NEA/A | FL | BODO, SAG |
| 3503 | | 2008 | 2 | 7 | 0933 | H | 30.59332 | 81.38918 | NEA/A | FL | BODO, SAG |
| | 2006 Calf of 1946 | 2008 | 2 | 7 | 0938 | #1 | 30.59387 | 81.3807 | NEA/A | FL | SAG |
| 3530 | | 2008 | 2 | 7 | 0938 | I | 30.59387 | 81.3807 | NEA/A | FL | SAG |
| 3579 | | 2008 | 2 | 7 | 0938 | J | 30.59387 | 81.3807 | NEA/A | FL | SAG |
| 3540 | | 2008 | 2 | 7 | 0938 | K | 30.59387 | 81.3807 | NEA/A | FL | SAG |
| | | 2008 | 2 | 7 | 0947 | L | 30.57045 | 81.32065 | NEA/A | FL | MOPN |
| | | 2008 | 2 | 7 | 1003 | #2 | 30.55893 | 81.2929 | NEA/A | FL | SAG |
| | BK01BOF07 | 2008 | 2 | 7 | 1003 | M | 30.55893 | 81.2929 | NEA/A | FL | |
| 2427 | | 2008 | 2 | 7 | 1003 | N | 30.55893 | 81.2929 | NEA/A | FL | SAG |
| | BK01CCB08 | 2008 | 2 | 7 | 1003 | O | 30.55893 | 81.2929 | NEA/A | FL | SAG |
| | | 2008 | 2 | 7 | 1003 | P | 30.55893 | 81.2929 | NEA/A | FL | SAG |
| 3310 | | 2008 | 2 | 7 | 1008 | Q | 30.56897 | 81.26468 | NEA/A | FL | MOPN, SAG, W/UNPH EG |
| | | 2008 | 2 | 7 | 1008 | S | 30.56897 | 81.26468 | NEA/A | FL | SAG, W/UNPH EG |
| 3142 | | 2008 | 2 | 7 | 1107 | T | 30.68585 | 81.35178 | NEA/A | FL | |
| 3240 | | 2008 | 2 | 7 | 1107 | U | 30.68585 | 81.35178 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|------------------------|
| | | 2008 | 2 | 7 | 1124 | V | 30.69971 | 81.21073 | NEA/A | FL | |
| 3293 | | 2008 | 2 | 7 | 1220 | W | 30.80267 | 81.12244 | NEA/A | GA | W/CALF |
| | 2008 Calf of 3293 | 2008 | 2 | 7 | 1220 | X | 30.80267 | 81.12244 | NEA/A | GA | CALF W/MOM |
| | 2006 Calf of 2123 | 2008 | 2 | 7 | 1229 | Y | 30.76545 | 81.12218 | NEA/A | GA | BRCH |
| | 2008 Calf of 1622 | 2008 | 2 | 7 | 1406 | AA | 30.47053 | 81.39236 | NEA/A | FL | CALF W/MOM |
| 1622 | | 2008 | 2 | 7 | 1406 | Z | 30.47053 | 81.39236 | NEA/A | FL | W/CALF |
| 3292 | | 2008 | 2 | 7 | 1423 | BB | 30.34253 | 81.20372 | NEA/A | FL | W/CALF |
| | 2008 Calf of 3292 | 2008 | 2 | 7 | 1423 | CC | 30.34253 | 81.20372 | NEA/A | FL | CALF W/MOM |
| 2040 | | 2008 | 2 | 7 | 1546 | DD | 30.46858 | 81.15286 | NEA/A | FL | W/CALF |
| | 2008 Calf of 2040 | 2008 | 2 | 7 | 1546 | EE | 30.46858 | 81.15286 | NEA/A | FL | CALF W/MOM |
| 1243 | | 2008 | 2 | 7 | 1602 | FF | 30.43313 | 81.34901 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 7 | 1602 | GG | 30.43313 | 81.34901 | NEA/A | FL | CALF W/MOM |
| 1622 | | 2008 | 2 | 8 | 0923 | A | 30.46125 | 81.40517 | NEA/A | FL | BODO, NURS, W/CALF |
| | 2008 Calf of 1622 | 2008 | 2 | 8 | 0923 | B | 30.46125 | 81.40517 | NEA/A | FL | BODO, CALF W/MOM, NURS |
| 1802 | | 2008 | 2 | 8 | 1012 | C | 30.33673 | 81.2113 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1802 | 2008 | 2 | 8 | 1012 | D | 30.33673 | 81.2113 | NEA/A | FL | CALF W/MOM |
| 3157 | | 2008 | 2 | 8 | 1056 | E | 30.42661 | 81.25905 | NEA/A | FL | |
| | | 2008 | 2 | 8 | 1056 | F | 30.42661 | 81.25905 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|----------------------------|
| | CT01SEUS05 | 2008 | 2 | 8 | 1124 | G | 30.51437 | 81.27732 | NEA/A | FL | |
| 3503 | | 2008 | 2 | 8 | 1126 | H | 30.5148 | 81.27455 | NEA/A | FL | |
| 2427 | | 2008 | 2 | 8 | 1126 | I | 30.5148 | 81.27455 | NEA/A | FL | |
| | 2007 Calf of 2614 | 2008 | 2 | 8 | 1126 | J | 30.5148 | 81.27455 | NEA/A | FL | BEL/BEL |
| 3340 | | 2008 | 2 | 8 | 1126 | K | 30.5148 | 81.27455 | NEA/A | FL | BEL/BEL, WH BEL, WH CHN |
| | SE07BK08 | 2008 | 2 | 8 | 1131 | L | 30.5167 | 81.28162 | NEA/A | FL | |
| | | 2008 | 2 | 8 | 1133 | M | 30.51543 | 81.28455 | NEA/A | FL | |
| | BK01BOF07 | 2008 | 2 | 8 | 1137 | N | 30.50728 | 81.27145 | NEA/A | FL | |
| | CT01SEUS05 | 2008 | 2 | 8 | 1142 | O | 30.50479 | 81.27804 | NEA/A | FL | |
| 3330 | | 2008 | 2 | 8 | 1151 | P | 30.536 | 81.30237 | NEA/A | FL | RACE, SAG |
| | | 2008 | 2 | 8 | 1151 | Q | 30.536 | 81.30237 | NEA/A | FL | RACE, SAG |
| | | 2008 | 2 | 8 | 1151 | R | 30.536 | 81.30237 | NEA/A | FL | RACE, SAG |
| | | 2008 | 2 | 8 | 1151 | S | 30.536 | 81.30237 | NEA/A | FL | RACE, SAG, WH BEL, WH CHN |
| | | 2008 | 2 | 8 | 1203 | T | 30.54178 | 81.30628 | NEA/A | FL | |
| 2040 | | 2008 | 2 | 8 | 1233 | U | 30.51958 | 81.07432 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 2040 | 2008 | 2 | 8 | 1233 | V | 30.51958 | 81.07432 | NEA/A | FL | BOD CNT, CALF W/MOM |
| | | 2008 | 2 | 8 | 1258 | W | 30.56023 | 81.29674 | NEA/A | FL | BRCH, LBTL, WH BEL, WH CHN |
| 3540 | | 2008 | 2 | 8 | 1315 | X | 30.568 | 81.35313 | NEA/A | FL | BOD CNT, BODO |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-------------------------|
| | | 2008 | 2 | 8 | 1315 | Y | 30.568 | 81.35313 | NEA/A | FL | BOD CNT, BODO |
| | | 2008 | 2 | 8 | 1319 | AA | 30.5501 | 81.32668 | NEA/A | FL | SAG, WH CHN |
| 3310 | | 2008 | 2 | 8 | 1319 | BB | 30.5501 | 81.32668 | NEA/A | FL | SAG |
| 3346 | | 2008 | 2 | 8 | 1319 | CC | 30.5501 | 81.32668 | NEA/A | FL | SAG |
| | | 2008 | 2 | 8 | 1319 | Z | 30.5501 | 81.32668 | NEA/A | FL | SAG |
| | 2007 Calf of 2642 | 2008 | 2 | 8 | 1326 | FF | 30.54462 | 81.3271 | NEA/A | FL | |
| | | 2008 | 2 | 8 | 1441 | GG | 30.592 | 81.37064 | NEA/A | FL | BOD CNT |
| | | 2008 | 2 | 8 | 1441 | HH | 30.592 | 81.37064 | NEA/A | FL | BOD CNT |
| | | 2008 | 2 | 8 | 1441 | II | 30.592 | 81.37064 | NEA/A | FL | BOD CNT, WH BEL, WH CHN |
| 3460 | | 2008 | 2 | 8 | 1442 | JJ | 30.5915 | 81.36935 | NEA/A | FL | |
| 3423 | | 2008 | 2 | 8 | 1445 | KK | 30.59635 | 81.36568 | NEA/A | FL | BOD CNT |
| | 2006 calf of 1950 | 2008 | 2 | 8 | 1445 | LL | 30.59635 | 81.36568 | NEA/A | FL | BEL/BEL, WH BEL |
| 2920 | | 2008 | 2 | 8 | 1445 | MM | 30.59635 | 81.36568 | NEA/A | FL | |
| 3401 | | 2008 | 2 | 8 | 1445 | NN | 30.59635 | 81.36568 | NEA/A | FL | |
| 1308 | | 2008 | 2 | 8 | 1605 | OO | 30.75243 | 81.22292 | NEA/A | GA | W/CALF |
| | 2008 Calf of 1308 | 2008 | 2 | 8 | 1605 | PP | 30.75243 | 81.22292 | NEA/A | GA | CALF W/MOM |
| 3293 | | 2008 | 2 | 8 | 1615 | QQ | 30.72265 | 81.29222 | NEA/A | GA | BOD CNT, W/CALF |
| | 2008 Calf of 3293 | 2008 | 2 | 8 | 1615 | RR | 30.72265 | 81.29222 | NEA/A | GA | BOD CNT, CALF W/MOM |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---|
| 3142 | | 2008 | 2 | 9 | 0940 | A | 30.36105 | 81.3154 | NEA/A | FL | |
| 3246 | | 2008 | 2 | 9 | 0940 | B | 30.36105 | 81.3154 | NEA/A | FL | |
| 3010 | | 2008 | 2 | 9 | 0952 | C | 30.38693 | 81.22478 | NEA/A | FL | |
| 2427 | | 2008 | 2 | 9 | 1001 | #1 | 30.41975 | 81.18346 | NEA/A | FL | SAG, WH BEL |
| 2027 | | 2008 | 2 | 9 | 1001 | D | 30.41975 | 81.18346 | NEA/A | FL | MALE, SAG |
| 3411 | | 2008 | 2 | 9 | 1001 | E | 30.41975 | 81.18346 | NEA/A | FL | BEL UP, BLK BEL, BLK CHN, FCL, FEM, SAG |
| 3579 | | 2008 | 2 | 9 | 1008 | F | 30.41382 | 81.19981 | NEA/A | FL | BOD CNT |
| 3503 | | 2008 | 2 | 9 | 1008 | G | 30.41382 | 81.19981 | NEA/A | FL | BOD CNT |
| | | 2008 | 2 | 9 | 1014 | H | 30.40647 | 81.20727 | NEA/A | FL | |
| 1243 | | 2008 | 2 | 9 | 1053 | I | 30.45716 | 81.32703 | NEA/A | FL | BOD CNT, BODO, W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 9 | 1053 | J | 30.45716 | 81.32703 | NEA/A | FL | BOD CNT, BODO, CALF W/MOM |
| 2790 | | 2008 | 2 | 9 | 1130 | K | 30.54727 | 81.11083 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 2790 | 2008 | 2 | 9 | 1130 | L | 30.54727 | 81.11083 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 3229 | | 2008 | 2 | 9 | 1139 | #2 | 30.53744 | 81.24886 | NEA/A | FL | WH CHN |
| 3530 | | 2008 | 2 | 9 | 1139 | M | 30.53744 | 81.24886 | NEA/A | FL | BEL/BEL |
| | | 2008 | 2 | 9 | 1139 | N | 30.53744 | 81.24886 | NEA/A | FL | BEL/BEL |
| 3190 | | 2008 | 2 | 9 | 1139 | O | 30.53744 | 81.24886 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---|
| 3541 | | 2008 | 2 | 9 | 1139 | P | 30.53744 | 81.24886 | NEA/A | FL | WH BEL, WH CHN |
| 3310 | | 2008 | 2 | 9 | 1139 | Q | 30.53744 | 81.24886 | NEA/A | FL | |
| 2920 | | 2008 | 2 | 9 | 1149 | R | 30.54113 | 81.24555 | NEA/A | FL | |
| | | 2008 | 2 | 9 | 1151 | S | 30.55083 | 81.23727 | NEA/A | FL | |
| 3466 | | 2008 | 2 | 9 | 1151 | T | 30.55083 | 81.23727 | NEA/A | FL | |
| | | 2008 | 2 | 9 | 1155 | U | 30.55383 | 81.25555 | NEA/A | FL | |
| | | 2008 | 2 | 9 | 1157 | #3 | 30.55065 | 81.25374 | NEA/A | FL | BOD CNT |
| | | 2008 | 2 | 9 | 1157 | #4 | 30.55065 | 81.25374 | NEA/A | FL | BOD CNT |
| 3279 | | 2008 | 2 | 9 | 1157 | V | 30.55065 | 81.25374 | NEA/A | FL | MALE, SAG, WH BEL, WH CHN |
| 3540 | | 2008 | 2 | 9 | 1157 | W | 30.55065 | 81.25374 | NEA/A | FL | FCL, SAG |
| | | 2008 | 2 | 9 | 1157 | X | 30.55065 | 81.25374 | NEA/A | FL | MALE, SAG |
| 3401 | | 2008 | 2 | 9 | 1159 | Y | 30.5598 | 81.25167 | NEA/A | FL | MOPN, WH BEL |
| 3229 | | 2008 | 2 | 9 | 1204 | AA | 30.52893 | 81.25011 | NEA/A | FL | |
| 3310 | | 2008 | 2 | 9 | 1204 | Z | 30.52893 | 81.25011 | NEA/A | FL | |
| 3460 | | 2008 | 2 | 9 | 1209 | BB | 30.57642 | 81.32284 | NEA/A | FL | |
| | 2006 calf of 1950 | 2008 | 2 | 9 | 1209 | CC | 30.57642 | 81.32284 | NEA/A | FL | BEL UP, BLK BEL, BLK CHN, FCL, FEM, SAG |
| 3423 | | 2008 | 2 | 9 | 1209 | DD | 30.57642 | 81.32284 | NEA/A | FL | SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------------|
| | | 2008 | 2 | 9 | 1331 | EE | 30.59101 | 81.33985 | NEA/A | FL | SAG |
| | 2006 Calf of 2503 | 2008 | 2 | 9 | 1331 | FF | 30.59101 | 81.33985 | NEA/A | FL | SAG, WH BEL, WH CHN |
| | | 2008 | 2 | 9 | 1331 | GG | 30.59101 | 81.33985 | NEA/A | FL | SAG |
| | | 2008 | 2 | 9 | 1332 | HH | 30.59112 | 81.33357 | NEA/A | FL | |
| | 2006 Calf of 1946 | 2008 | 2 | 9 | 1333 | II | 30.60605 | 81.34997 | NEA/A | FL | |
| 3346 | | 2008 | 2 | 9 | 1358 | JJ | 30.59043 | 81.33363 | NEA/A | FL | ENTGL |
| 3293 | | 2008 | 2 | 9 | 1500 | KK | 30.67488 | 81.26062 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 9 | 1500 | LL | 30.67488 | 81.26062 | NEA/A | FL | CALF W/MOM |
| 1308 | | 2008 | 2 | 9 | 1544 | MM | 30.80533 | 81.31644 | NEA/A | GA | BOD CNT, W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 9 | 1544 | NN | 30.80533 | 81.31644 | NEA/A | GA | BOD CNT, CALF W/MOM |
| 1243 | | 2008 | 2 | 11 | 1208 | A | 30.31892 | 81.29402 | NEA/A | FL | BOD CNT, LBTL, NURS, W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 11 | 1208 | B | 30.31892 | 81.29402 | NEA/A | FL | BOD CNT, BRCH, CALF W/MOM, NURS |
| 1802 | | 2008 | 2 | 12 | 1003 | A | 30.33983 | 81.1722 | NEA/A | FL | W/CALF, WH CHN |
| | 2008 Calf of 1802 | 2008 | 2 | 12 | 1003 | B | 30.33983 | 81.1722 | NEA/A | FL | CALF W/MOM |
| 3240 | | 2008 | 2 | 12 | 1015 | C | 30.33353 | 81.34843 | NEA/A | FL | BODO |
| 3142 | | 2008 | 2 | 12 | 1015 | D | 30.33353 | 81.34843 | NEA/A | FL | BODO |
| 3293 | | 2008 | 2 | 12 | 1024 | E | 30.32553 | 81.34795 | NEA/A | FL | BODO, W/CALF |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------|
| | 2008 Calf of 3293 | 2008 | 2 | 12 | 1024 | F | 30.32553 | 81.34795 | NEA/A | FL | BODO, CALF W/MOM |
| 3130 | | 2008 | 2 | 12 | 1332 | G | 30.67675 | 81.32442 | NEA/A | FL | W/CALF |
| | 2008 Calf of 3130 | 2008 | 2 | 12 | 1332 | H | 30.67675 | 81.32442 | NEA/A | FL | CALF W/MOM |
| 2330 | | 2008 | 2 | 12 | 1424 | I | 30.73829 | 81.3091 | NEA/A | GA | W/CALF |
| | 2008 Calf of 2330 | 2008 | 2 | 12 | 1424 | J | 30.73829 | 81.3091 | NEA/A | GA | CALF W/MOM |
| | | 2008 | 2 | 14 | 1223 | #1 | 30.6051 | 81.24953 | NEA/A | FL | SAG |
| 3330 | | 2008 | 2 | 14 | 1223 | A | 30.6051 | 81.24953 | NEA/A | FL | SAG |
| 3442 | | 2008 | 2 | 14 | 1223 | B | 30.6051 | 81.24953 | NEA/A | FL | SAG, WH BEL, WH CHN |
| | | 2008 | 2 | 14 | 1223 | C | 30.6051 | 81.24953 | NEA/A | FL | SAG |
| 1243 | | 2008 | 2 | 14 | 1243 | D | 30.57828 | 81.15694 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 14 | 1243 | E | 30.57828 | 81.15694 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 3157 | | 2008 | 2 | 14 | 1307 | F | 30.65493 | 81.34827 | NEA/A | FL | LOG |
| 3294 | | 2008 | 2 | 14 | 1307 | G | 30.65493 | 81.34827 | NEA/A | FL | LOG |
| 3142 | | 2008 | 2 | 14 | 1321 | H | 30.67287 | 81.17867 | NEA/A | FL | LOG |
| 3240 | | 2008 | 2 | 14 | 1321 | I | 30.67287 | 81.17867 | NEA/A | FL | LOG |
| 3466 | | 2008 | 2 | 14 | 1336 | J | 30.747 | 81.1499 | NEA/A | GA | |
| | | 2008 | 2 | 14 | 1336 | K | 30.747 | 81.1499 | NEA/A | GA | |
| 3579 | | 2008 | 2 | 14 | 1336 | L | 30.747 | 81.1499 | NEA/A | GA | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-----------------------|
| 1802 | | 2008 | 2 | 14 | 1345 | M | 30.74067 | 81.16032 | NEA/A | GA | BOD CNT, W/CALF |
| | 2008 Calf of 1802 | 2008 | 2 | 14 | 1345 | N | 30.74067 | 81.16032 | NEA/A | GA | BOD CNT, CALF W/MOM |
| 3292 | | 2008 | 2 | 14 | 1424 | O | 30.84192 | 81.23855 | NEA/A | GA | BOD CNT, W/CALF |
| | 2008 Calf of 3292 | 2008 | 2 | 14 | 1424 | P | 30.84192 | 81.23855 | NEA/A | GA | BOD CNT, CALF W/MOM |
| 3293 | | 2008 | 2 | 14 | 1606 | Q | 30.33335 | 81.13078 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 3293 | 2008 | 2 | 14 | 1606 | R | 30.33335 | 81.13078 | NEA/A | FL | CALF W/MOM, NURS |
| 2790 | | 2008 | 2 | 14 | 1620 | S | 30.33955 | 81.19504 | NEA/A | FL | W/CALF |
| | 2008 Calf of 2790 | 2008 | 2 | 14 | 1620 | T | 30.33955 | 81.19504 | NEA/A | FL | CALF W/MOM |
| | 2006 Calf of 2503 | 2008 | 2 | 14 | 1624 | U | 30.31997 | 81.24943 | NEA/A | FL | BODO, LOG, WH CHN |
| 3530 | | 2008 | 2 | 14 | 1632 | V | 30.32788 | 81.25449 | NEA/A | FL | |
| 3442 | | 2008 | 2 | 14 | 1733 | W | 30.58499 | 81.19878 | NEA/A | FL | SAG, WH CHN |
| | | 2008 | 2 | 14 | 1733 | X | 30.58499 | 81.19878 | NEA/A | FL | SAG |
| | | 2008 | 2 | 14 | 1733 | Y | 30.58499 | 81.19878 | NEA/A | FL | BLK BEL, BLK CHN, SAG |
| | | 2008 | 2 | 14 | 1733 | Z | 30.58499 | 81.19878 | NEA/A | FL | BLK BEL, SAG |
| 2330 | | 2008 | 2 | 15 | 0901 | A | 30.29797 | 81.22545 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 2330 | 2008 | 2 | 15 | 0901 | B | 30.29797 | 81.22545 | NEA/A | FL | CALF W/MOM, NURS |
| 2790 | | 2008 | 2 | 15 | 0946 | C | 30.43233 | 81.24651 | NEA/A | FL | BOD CNT, W/CALF |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------------------|
| | 2008 Calf of 2790 | 2008 | 2 | 15 | 0946 | D | 30.43233 | 81.24651 | NEA/A | FL | BLK BEL, BLK CHN, BOD CNT, CALF W/MOM |
| | 2006 Calf of 2503 | 2008 | 2 | 15 | 1103 | E | 30.53208 | 81.19044 | NEA/A | FL | BEL/BEL |
| | | 2008 | 2 | 15 | 1103 | F | 30.53208 | 81.19044 | NEA/A | FL | BEL/BEL |
| 3293 | | 2008 | 2 | 15 | 1116 | G | 30.53228 | 81.23186 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 3293 | 2008 | 2 | 15 | 1116 | H | 30.53228 | 81.23186 | NEA/A | FL | CALF W/MOM, NURS |
| 1243 | | 2008 | 2 | 15 | 1129 | I | 30.55523 | 81.25993 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 15 | 1129 | J | 30.55523 | 81.25993 | NEA/A | FL | CALF W/MOM, NURS |
| 3346 | | 2008 | 2 | 15 | 1218 | K | 30.6309 | 81.20461 | NEA/A | FL | BOD CNT, ENTGL |
| | 2006 CALF of 1611 | 2008 | 2 | 15 | 1218 | L | 30.6309 | 81.20461 | NEA/A | FL | BOD CNT |
| 3541 | | 2008 | 2 | 15 | 1218 | M | 30.6309 | 81.20461 | NEA/A | FL | |
| | | 2008 | 2 | 15 | 1223 | N | 30.63815 | 81.20897 | NEA/A | FL | BRCH |
| 3442 | | 2008 | 2 | 15 | 1224 | O | 30.6406 | 81.20077 | NEA/A | FL | SAG |
| | BK03BOF07 | 2008 | 2 | 15 | 1224 | P | 30.6406 | 81.20077 | NEA/A | FL | BLK BEL, BLK CHN, SAG |
| 3503 | | 2008 | 2 | 15 | 1227 | Q | 30.65012 | 81.20127 | NEA/A | FL | |
| 3123 | | 2008 | 2 | 15 | 1446 | R | 30.74967 | 81.26537 | NEA/A | GA | BODO |
| 3010 | | 2008 | 2 | 15 | 1446 | S | 30.74967 | 81.26537 | NEA/A | GA | BODO |
| 3330 | | 2008 | 2 | 16 | 0958 | A | 30.79853 | 81.20837 | NEA/A | GA | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|------------------------------|
| | 2006 CALF of 1611 | 2008 | 2 | 16 | 0958 | B | 30.79853 | 81.20837 | NEA/A | GA | |
| | BK03BOF07 | 2008 | 2 | 16 | 0958 | C | 30.79853 | 81.20837 | NEA/A | GA | |
| 3040 | | 2008 | 2 | 16 | 1010 | D | 30.78022 | 81.20433 | NEA/A | GA | |
| | | 2008 | 2 | 16 | 1042 | E | 30.73855 | 81.20808 | NEA/A | GA | LOG |
| 3346 | | 2008 | 2 | 16 | 1044 | F | 30.7258 | 81.21738 | NEA/A | GA | ENTGL |
| 3503 | | 2008 | 2 | 16 | 1044 | G | 30.7258 | 81.21738 | NEA/A | GA | |
| | | 2008 | 2 | 16 | 1048 | H | 30.73037 | 81.21526 | NEA/A | GA | SAG |
| 3442 | | 2008 | 2 | 16 | 1048 | I | 30.73037 | 81.21526 | NEA/A | GA | SAG, WH CHN |
| 3346 | | 2008 | 2 | 16 | 1050 | #1 | 30.72892 | 81.22221 | NEA/A | GA | APPR |
| | 2006 Calf of 2503 | 2008 | 2 | 16 | 1050 | J | 30.72892 | 81.22221 | NEA/A | GA | BEL/BEL, SAG, WH CHN |
| | | 2008 | 2 | 16 | 1050 | K | 30.72892 | 81.22221 | NEA/A | GA | BEL/BEL, SAG, WH BEL, WH CHN |
| | | 2008 | 2 | 16 | 1057 | L | 30.71726 | 81.21696 | NEA/A | GA | BODO, WH CHN |
| 3292 | | 2008 | 2 | 16 | 1138 | M | 30.69213 | 81.34658 | NEA/A | FL | BODO, W/CALF |
| | 2008 Calf of 3292 | 2008 | 2 | 16 | 1138 | N | 30.69213 | 81.34658 | NEA/A | FL | BODO, CALF W/MOM |
| 3293 | | 2008 | 2 | 16 | 1157 | O | 30.62789 | 81.2014 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 3293 | 2008 | 2 | 16 | 1157 | P | 30.62789 | 81.2014 | NEA/A | FL | CALF W/MOM, NURS |
| | | 2008 | 2 | 16 | 1340 | Q | 30.56748 | 81.19553 | NEA/A | FL | BEL/BEL |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|------------------------|
| | | 2008 | 2 | 16 | 1340 | R | 30.56748 | 81.19553 | NEA/A | FL | |
| | | 2008 | 2 | 16 | 1340 | S | 30.56748 | 81.19553 | NEA/A | FL | |
| | | 2008 | 2 | 16 | 1349 | T | 30.55153 | 81.18459 | NEA/A | FL | |
| | | 2008 | 2 | 16 | 1355 | U | 30.55222 | 81.1775 | NEA/A | FL | |
| | BK01BOF07 | 2008 | 2 | 16 | 1355 | V | 30.55222 | 81.1775 | NEA/A | FL | |
| 2427 | | 2008 | 2 | 16 | 1355 | W | 30.55222 | 81.1775 | NEA/A | FL | |
| | | 2008 | 2 | 16 | 1406 | X | 30.52817 | 81.21567 | NEA/A | FL | |
| | 2007 Calf of 2614 | 2008 | 2 | 16 | 1410 | AA | 30.51977 | 81.23042 | NEA/A | FL | |
| 1243 | | 2008 | 2 | 16 | 1410 | Y | 30.51773 | 81.23032 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 16 | 1410 | Z | 30.51773 | 81.23032 | NEA/A | FL | CALF W/MOM |
| 1308 | | 2008 | 2 | 16 | 1548 | BB | 30.32355 | 81.38084 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1308 | 2008 | 2 | 16 | 1548 | CC | 30.32355 | 81.38084 | NEA/A | FL | BOD CNT, CALF W/MOM |
| | | 2008 | 2 | 17 | 0920 | A | 30.83225 | 81.22847 | NEA/A | GA | |
| 3346 | | 2008 | 2 | 17 | 0929 | B | 30.86072 | 81.22993 | NEA/A | GA | ENTGL |
| | 2007 Calf of 2614 | 2008 | 2 | 17 | 0932 | C | 30.86435 | 81.23289 | NEA/A | GA | BODO |
| 3503 | | 2008 | 2 | 17 | 0932 | D | 30.86498 | 81.23289 | NEA/A | GA | BEL/BEL, BOD CNT, BODO |
| | | 2008 | 2 | 17 | 0932 | E | 30.86435 | 81.23289 | NEA/A | GA | BODO, MOPN |
| | 2006 CALF of 1611 | 2008 | 2 | 17 | 0932 | F | 30.86453 | 81.23289 | NEA/A | GA | BOD CNT, BODO |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-----------------|
| | 2006 calf of 1950 | 2008 | 2 | 17 | 0950 | G | 30.86498 | 81.1757 | NEA/A | GA | BODO, MOPN, SAG |
| | | 2008 | 2 | 17 | 0950 | H | 30.86498 | 81.1757 | NEA/A | GA | BODO, SAG |
| 3040 | | 2008 | 2 | 17 | 0950 | I | 30.86498 | 81.1757 | NEA/A | GA | BODO, SAG |
| | | 2008 | 2 | 17 | 1022 | #1 | 30.7621 | 81.17918 | NEA/A | GA | BODO, SAG |
| | | 2008 | 2 | 17 | 1022 | #2 | 30.7621 | 81.17918 | NEA/A | GA | BODO, SAG |
| | | 2008 | 2 | 17 | 1022 | J | 30.7621 | 81.17918 | NEA/A | GA | BODO, SAG |
| 3330 | | 2008 | 2 | 17 | 1022 | K | 30.7621 | 81.17918 | NEA/A | GA | BODO, SAG |
| 1934 | | 2008 | 2 | 17 | 1022 | L | 30.7621 | 81.17918 | NEA/A | GA | BODO, FCL, SAG |
| | | 2008 | 2 | 17 | 1022 | M | 30.7621 | 81.17918 | NEA/A | GA | BODO, SAG |
| | | 2008 | 2 | 17 | 1022 | N | 30.7621 | 81.17918 | NEA/A | GA | BODO, SAG |
| | | 2008 | 2 | 17 | 1041 | O | 30.75748 | 81.17861 | NEA/A | GA | LBTL |
| 3150 | | 2008 | 2 | 17 | 1041 | P | 30.75432 | 81.17725 | NEA/A | GA | |
| 2608 | | 2008 | 2 | 17 | 1056 | Q | 30.75293 | 81.18548 | NEA/A | GA | |
| 3530 | | 2008 | 2 | 17 | 1106 | R | 30.7245 | 81.22331 | NEA/A | GA | BOD CNT |
| 3442 | | 2008 | 2 | 17 | 1106 | S | 30.7245 | 81.22331 | NEA/A | GA | BOD CNT |
| 2608 | | 2008 | 2 | 17 | 1106 | T | 30.7245 | 81.22331 | NEA/A | GA | BOD CNT |
| 3420 | | 2008 | 2 | 17 | 1114 | U | 30.71197 | 81.24155 | NEA/A | GA | SAG, W/UNPH EG |
| | | 2008 | 2 | 17 | 1114 | V | 30.71197 | 81.24155 | NEA/A | GA | SAG, W/UNPH EG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------|
| 3010 | | 2008 | 2 | 17 | 1131 | X | 30.7737 | 81.27037 | NEA/A | GA | |
| 2753 | | 2008 | 2 | 17 | 1131 | Y | 30.7737 | 81.27037 | NEA/A | GA | |
| | 2008 Calf of 2753 | 2008 | 2 | 17 | 1319 | AA | 30.31138 | 81.38947 | NEA/A | FL | BOD CNT, CALF W/MOM |
| | | 2008 | 2 | 17 | 1319 | Z | 30.31138 | 81.38947 | NEA/A | FL | BOD CNT, W/CALF |
| 2330 | | 2008 | 2 | 17 | 1422 | BB | 30.39928 | 81.08233 | NEA/A | FL | W/CALF |
| | 2008 Calf of 2330 | 2008 | 2 | 17 | 1422 | CC | 30.39928 | 81.08233 | NEA/A | FL | CALF W/MOM |
| 3142 | | 2008 | 2 | 17 | 1457 | DD | 30.4808 | 81.3737 | NEA/A | FL | BOD CNT, BODO |
| 3240 | | 2008 | 2 | 17 | 1457 | EE | 30.4808 | 81.3737 | NEA/A | FL | BOD CNT, BODO |
| | | 2008 | 2 | 17 | 1539 | FF | 30.5353 | 81.38198 | NEA/A | FL | |
| 3103 | | 2008 | 2 | 17 | 1539 | GG | 30.5353 | 81.38198 | NEA/A | FL | |
| 1245 | | 2008 | 2 | 19 | 1310 | A | 30.7339 | 81.25798 | NEA/A | GA | BODO, W/CALF |
| | 2008 Calf of 1245 | 2008 | 2 | 19 | 1310 | B | 30.7339 | 81.25798 | NEA/A | GA | BODO, CALF W/MOM |
| 2330 | | 2008 | 2 | 19 | 1336 | C | 30.66633 | 81.21139 | NEA/A | FL | BOD CNT, NURS, W/CALF |
| | 2008 Calf of 2330 | 2008 | 2 | 19 | 1336 | D | 30.66633 | 81.21139 | NEA/A | FL | BOD CNT, CALF W/MOM, NURS |
| 1703 | | 2008 | 2 | 19 | 1436 | E | 30.57903 | 81.29338 | NEA/A | FL | BODO, W/CALF |
| | 2008 Calf of 1703 | 2008 | 2 | 19 | 1436 | F | 30.57903 | 81.29338 | NEA/A | FL | BODO, CALF W/MOM |
| 3420 | | 2008 | 2 | 19 | 1537 | G | 30.30798 | 81.24973 | NEA/A | FL | BODO, SAG, WH CHN |
| | | 2008 | 2 | 19 | 1537 | H | 30.30798 | 81.24973 | NEA/A | FL | BODO, SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------------|
| 3150 | | 2008 | 2 | 19 | 1537 | I | 30.30798 | 81.24973 | NEA/A | FL | BODO, SAG, WH BEL, WH CHN |
| | BK01BOF07 | 2008 | 2 | 19 | 1537 | J | 30.30798 | 81.24973 | NEA/A | FL | APPR, BODO |
| 1706 | | 2008 | 2 | 19 | 1617 | K | 30.30315 | 81.2296 | NEA/A | FL | WH BEL, WH CHN |
| 3245 | | 2008 | 2 | 19 | 1617 | L | 30.30315 | 81.2296 | NEA/A | FL | |
| 3530 | | 2008 | 2 | 19 | 1622 | M | 30.30123 | 81.22915 | NEA/A | FL | |
| 3292 | | 2008 | 2 | 19 | 1633 | N | 30.38315 | 81.37821 | NEA/A | FL | BOD CNT, BODO, W/CALF |
| | 2008 Calf of 3292 | 2008 | 2 | 19 | 1633 | O | 30.38315 | 81.37821 | NEA/A | FL | BOD CNT, BODO, CALF W/MOM |
| 1308 | | 2008 | 2 | 19 | 1651 | P | 30.38519 | 81.04499 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 1308 | 2008 | 2 | 19 | 1651 | Q | 30.38519 | 81.04499 | NEA/A | FL | CALF W/MOM, NURS |
| 2470 | | 2008 | 2 | 20 | 0932 | A | 30.26702 | 81.19348 | NEA/A | FL | |
| 3245 | | 2008 | 2 | 20 | 0932 | B | 30.26702 | 81.19348 | NEA/A | FL | |
| 3530 | | 2008 | 2 | 20 | 0932 | C | 30.26702 | 81.19348 | NEA/A | FL | |
| 1706 | | 2008 | 2 | 20 | 0933 | D | 30.25933 | 81.1871 | NEA/A | FL | |
| 3442 | | 2008 | 2 | 20 | 0938 | E | 30.26513 | 81.19033 | NEA/A | FL | WH CHN |
| 2470 | | 2008 | 2 | 20 | 0939 | F | 30.25975 | 81.18477 | NEA/A | FL | |
| | BK01BOF07 | 2008 | 2 | 20 | 0943 | G | 30.2633 | 81.18845 | NEA/A | FL | |
| | | 2008 | 2 | 20 | 0943 | H | 30.2633 | 81.18845 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------|
| 1308 | | 2008 | 2 | 20 | 1222 | I | 30.60543 | 81.19296 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1308 | 2008 | 2 | 20 | 1222 | J | 30.60543 | 81.19296 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 1245 | | 2008 | 2 | 20 | 1234 | K | 30.5637 | 81.10361 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1245 | 2008 | 2 | 20 | 1234 | L | 30.56372 | 81.10361 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 2790 | | 2008 | 2 | 20 | 1308 | M | 30.71198 | 81.25337 | NEA/A | GA | BOD CNT, W/CALF |
| | 2008 Calf of 2790 | 2008 | 2 | 20 | 1308 | N | 30.71198 | 81.25337 | NEA/A | GA | BOD CNT, CALF W/MOM |
| 3142 | | 2008 | 2 | 20 | 1410 | O | 30.78865 | 81.26501 | NEA/A | GA | LOG, WH CHN |
| 3240 | | 2008 | 2 | 20 | 1410 | P | 30.78865 | 81.26501 | NEA/A | GA | LOG |
| 1802 | | 2008 | 2 | 20 | 1444 | Q | 30.83265 | 81.13818 | NEA/A | GA | BOD CNT, W/YRLG |
| | 2008 Calf of 1802 | 2008 | 2 | 20 | 1444 | R | 30.83265 | 81.13818 | NEA/A | GA | BOD CNT, CALF W/MOM |
| 1243 | | 2008 | 2 | 21 | 0946 | A | 30.71334 | 81.35285 | NEA/A | GA | W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 21 | 0946 | B | 30.71334 | 81.35285 | NEA/A | GA | CALF W/MOM |
| 3292 | | 2008 | 2 | 21 | 0956 | C | 30.82882 | 81.38268 | NEA/A | GA | BODO, W/CALF |
| | 2008 Calf of 3292 | 2008 | 2 | 21 | 0956 | D | 30.82882 | 81.38268 | NEA/A | GA | BODO, CALF W/MOM |
| 3142 | | 2008 | 2 | 21 | 1001 | E | 30.85318 | 81.34467 | NEA/A | GA | |
| 3240 | | 2008 | 2 | 21 | 1001 | F | 30.85318 | 81.34467 | NEA/A | GA | |
| 1703 | | 2008 | 2 | 21 | 1009 | G | 30.86883 | 81.21819 | NEA/A | GA | W/CALF |
| | 2008 Calf of 1703 | 2008 | 2 | 21 | 1009 | H | 30.86883 | 81.21819 | NEA/A | GA | CALF W/MOM |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|------------------------------|
| 2753 | | 2008 | 2 | 21 | 1023 | I | 30.80305 | 81.17886 | NEA/A | GA | W/CALF |
| | 2008 Calf of 2753 | 2008 | 2 | 21 | 1023 | J | 30.80305 | 81.17886 | NEA/A | GA | CALF W/MOM |
| 1802 | | 2008 | 2 | 21 | 1057 | K | 30.78522 | 81.26762 | NEA/A | GA | W/CALF |
| | 2008 Calf of 1802 | 2008 | 2 | 21 | 1057 | L | 30.78522 | 81.26762 | NEA/A | GA | CALF W/MOM, FLIP, LBTL, ROLL |
| 1243 | | 2008 | 2 | 21 | 1141 | M | 30.7005 | 81.34714 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1243 | 2008 | 2 | 21 | 1141 | N | 30.7005 | 81.34714 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 1802 | | 2008 | 2 | 23 | 1134 | A | 30.5448 | 81.08919 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 1802 | 2008 | 2 | 23 | 1134 | B | 30.5448 | 81.08919 | NEA/A | FL | CALF W/MOM, NURS |
| | | 2008 | 2 | 23 | 1209 | C | 30.47167 | 81.2238 | NEA/A | FL | |
| 3442 | | 2008 | 2 | 23 | 1209 | D | 30.47167 | 81.2238 | NEA/A | FL | |
| 3245 | | 2008 | 2 | 23 | 1222 | E | 30.50598 | 81.22185 | NEA/A | FL | |
| | | 2008 | 2 | 23 | 1222 | F | 30.50598 | 81.22185 | NEA/A | FL | |
| 1622 | | 2008 | 2 | 23 | 1230 | G | 30.51081 | 81.18694 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1622 | 2008 | 2 | 23 | 1230 | H | 30.51081 | 81.18694 | NEA/A | FL | CALF W/MOM |
| 1960 | | 2008 | 2 | 24 | 0936 | A | 30.81725 | 80.95879 | NEA/A | GA | |
| 2410 | | 2008 | 2 | 24 | 0936 | B | 30.81725 | 80.95879 | NEA/A | GA | WH CHN |
| | | 2008 | 2 | 24 | 1024 | #1 | 30.82635 | 81.114 | NEA/A | GA | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-------------------------|
| 1706 | | 2008 | 2 | 24 | 1024 | C | 30.82635 | 81.114 | NEA/A | GA | WH CHN |
| | BK01BOF07 | 2008 | 2 | 24 | 1024 | D | 30.82635 | 81.114 | NEA/A | GA | |
| | | 2008 | 2 | 24 | 1024 | E | 30.82635 | 81.114 | NEA/A | GA | |
| 3150 | | 2008 | 2 | 24 | 1024 | F | 30.82635 | 81.114 | NEA/A | GA | WH CHN |
| 1245 | | 2008 | 2 | 24 | 1040 | G | 30.78355 | 81.2837 | NEA/A | GA | W/CALF |
| | 2008 Calf of 1245 | 2008 | 2 | 24 | 1040 | H | 30.78355 | 81.2837 | NEA/A | GA | CALF W/MOM |
| | | 2008 | 2 | 24 | 1052 | I | 30.72772 | 81.44658 | NEA/A | GA | BODO, ROLL |
| 3130 | | 2008 | 2 | 24 | 1136 | J | 30.65025 | 81.15172 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 3130 | 2008 | 2 | 24 | 1136 | K | 30.65025 | 81.15172 | NEA/A | FL | CALF W/MOM, NURS |
| | | 2008 | 2 | 24 | 1201 | L | 30.6349 | 81.2397 | NEA/A | FL | |
| | | 2008 | 2 | 24 | 1244 | M | 30.59198 | 81.24419 | NEA/A | FL | |
| 1802 | | 2008 | 2 | 24 | 1517 | N | 30.42888 | 81.25581 | NEA/A | FL | BOD CNT, W/CALF, WH CHN |
| | 2008 Calf of 1802 | 2008 | 2 | 24 | 1517 | O | 30.42888 | 81.25581 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 1622 | | 2008 | 2 | 24 | 1531 | P | 30.43258 | 81.39612 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1622 | 2008 | 2 | 24 | 1531 | Q | 30.43258 | 81.39612 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 3245 | | 2008 | 2 | 24 | 1610 | R | 30.54637 | 81.26116 | NEA/A | FL | |
| 1429 | | 2008 | 2 | 24 | 1618 | S | 30.54448 | 81.25875 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-----------|
| | | 2008 | 2 | 25 | 1009 | A | 31.4313 | 81.03335 | NEA/A | GA | |
| | CT02BOF2004 | 2008 | 2 | 25 | 1019 | B | 31.39645 | 81.04245 | NEA/A | GA | |
| | | 2008 | 2 | 25 | 1019 | C | 31.39645 | 81.04245 | NEA/A | GA | |
| | | 2008 | 2 | 25 | 1026 | D | 31.38228 | 81.06487 | NEA/A | GA | |
| | | 2008 | 2 | 25 | 1026 | E | 31.38228 | 81.06487 | NEA/A | GA | WH CHN |
| 3503 | | 2008 | 2 | 25 | 1026 | F | 31.38228 | 81.06487 | NEA/A | GA | |
| | | 2008 | 2 | 25 | 1026 | G | 31.38228 | 81.06487 | NEA/A | GA | |
| 3150 | | 2008 | 2 | 25 | 1028 | H | 31.38147 | 81.06516 | NEA/A | GA | WH CHN |
| | | 2008 | 2 | 25 | 1030 | #1 | 31.37683 | 81.05915 | NEA/A | GA | |
| 1320 | | 2008 | 2 | 25 | 1030 | I | 31.37683 | 81.05915 | NEA/A | GA | |
| 1712 | | 2008 | 2 | 25 | 1030 | J | 31.37683 | 81.05915 | NEA/A | GA | |
| | 2006 Calf of 2503 | 2008 | 2 | 25 | 1030 | K | 31.37683 | 81.05915 | NEA/A | GA | |
| | | 2008 | 2 | 25 | 1030 | L | 31.37683 | 81.05915 | NEA/A | GA | |
| | 2007 Calf of 2614 | 2008 | 2 | 25 | 1030 | M | 31.37683 | 81.05915 | NEA/A | GA | |
| 3346 | | 2008 | 2 | 25 | 1034 | N | 31.3867 | 81.07118 | NEA/A | GA | BOD CNT |
| | | 2008 | 2 | 25 | 1034 | O | 31.3867 | 81.07118 | NEA/A | GA | BOD CNT |
| 1706 | | 2008 | 2 | 25 | 1034 | P | 31.3867 | 81.07118 | NEA/A | GA | |
| | | 2008 | 2 | 25 | 1034 | Q | 31.3867 | 81.07118 | NEA/A | GA | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---|
| 3442 | | 2008 | 2 | 25 | 1042 | R | 31.36019 | 81.06095 | NEA/A | GA | WH CHN |
| 2040 | | 2008 | 2 | 25 | 1117 | S | 31.2933 | 80.97065 | NEA/A | GA | BOD CNT, W/CALF |
| | 2008 Calf of 2040 | 2008 | 2 | 25 | 1117 | T | 31.2933 | 80.97065 | NEA/A | GA | BLK BEL, BLK CHN, BOD CNT, CALF W/MOM, ROLL |
| 1408 | | 2008 | 2 | 25 | 1127 | U | 31.27363 | 80.96218 | NEA/A | GA | BOD CNT, W/CALF, WH BEL, WH CHN |
| | 2008 Calf of 1408 | 2008 | 2 | 25 | 1127 | V | 31.27363 | 80.96218 | NEA/A | GA | BOD CNT, CALF W/MOM |
| 2042 | | 2008 | 2 | 25 | 1156 | W | 31.2459 | 81.13109 | NEA/A | GA | |
| 3103 | | 2008 | 2 | 25 | 1156 | X | 31.2459 | 81.13109 | NEA/A | GA | |
| | | 2008 | 2 | 25 | 1247 | Y | 31.06372 | 81.15773 | NEA/A | GA | |
| 3294 | | 2008 | 2 | 25 | 1247 | Z | 31.06372 | 81.15773 | NEA/A | GA | |
| 1308 | | 2008 | 2 | 25 | 1307 | AA | 31.05588 | 81.27468 | NEA/A | GA | W/CALF |
| | 2008 Calf of 1308 | 2008 | 2 | 25 | 1307 | BB | 31.05588 | 81.27468 | NEA/A | GA | CALF W/MOM |
| 2753 | | 2008 | 2 | 25 | 1524 | CC | 30.77227 | 81.08482 | NEA/A | GA | W/CALF |
| | 2008 Calf of 2753 | 2008 | 2 | 25 | 1524 | DD | 30.77227 | 81.08482 | NEA/A | GA | BRCH, CALF W/MOM |
| 3260 | | 2008 | 2 | 25 | 1600 | EE | 30.89465 | 81.12452 | NEA/A | GA | |
| | BK57 | 2008 | 2 | 25 | 1600 | FF | 30.89465 | 81.12452 | NEA/A | GA | BLK BEL, BLK CHN, MOPN, ROLL |
| 2790 | | 2008 | 2 | 28 | 1329 | A | 30.4903 | 81.22607 | NEA/A | FL | W/CALF |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------|
| | 2008 Calf of 2790 | 2008 | 2 | 28 | 1329 | B | 30.4903 | 81.22607 | NEA/A | FL | CALF W/MOM |
| 1812 | | 2008 | 2 | 28 | 1344 | C | 30.47858 | 81.2106 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1812 | 2008 | 2 | 28 | 1344 | D | 30.47858 | 81.2106 | NEA/A | FL | CALF W/MOM |
| | | 2008 | 2 | 29 | 0929 | A | 30.80833 | 81.15333 | NEA/A | GA | |
| 3294 | | 2008 | 2 | 29 | 0929 | B | 30.80833 | 81.15333 | NEA/A | GA | |
| 1245 | | 2008 | 2 | 29 | 1149 | C | 30.49833 | 81.28 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1245 | 2008 | 2 | 29 | 1149 | D | 30.49833 | 81.28 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 3142 | | 2008 | 2 | 29 | 1155 | E | 30.51333 | 81.235 | NEA/A | FL | |
| 3240 | | 2008 | 2 | 29 | 1155 | F | 30.51333 | 81.235 | NEA/A | FL | |
| 2790 | | 2008 | 2 | 29 | 1203 | G | 30.51833 | 81.175 | NEA/A | FL | NURS, W/CALF |
| | 2008 Calf of 2790 | 2008 | 2 | 29 | 1203 | H | 30.51833 | 81.175 | NEA/A | FL | CALF W/MOM, NURS |
| 1245 | | 2008 | 2 | 29 | 1409 | I | 30.52 | 81.27833 | NEA/A | FL | W/CALF UNPH |
| 1812 | | 2008 | 3 | 1 | 1135 | A | 30.58252 | 81.20841 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1812 | 2008 | 3 | 1 | 1135 | B | 30.58252 | 81.20841 | NEA/A | FL | BOD CNT, CALF W/MOM |
| 1245 | | 2008 | 3 | 1 | 1139 | C | 30.57565 | 81.18632 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1245 | 2008 | 3 | 1 | 1139 | D | 30.57565 | 81.18632 | NEA/A | FL | CALF W/MOM |
| 3020 | | 2008 | 3 | 1 | 1154 | E | 30.62895 | 81.12833 | NEA/A | FL | W/CALF |
| | 2008 Calf of 3020 | 2008 | 3 | 1 | 1154 | F | 30.62895 | 81.12833 | NEA/A | FL | CALF W/MOM |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|---------------------|
| 1802 | | 2008 | 3 | 1 | 1519 | G | 30.77045 | 81.18956 | NEA/A | GA | BOD CNT, W/CALF |
| | 2008 Calf of 1802 | 2008 | 3 | 1 | 1519 | H | 30.77045 | 81.19555 | NEA/A | GA | BOD CNT, CALF W/MOM |
| 3503 | | 2008 | 3 | 1 | 1536 | I | 30.81942 | 80.81477 | NEA/A | GA | BRCH, LBTL, UW EXH |
| | 2007 Calf of 2601 | 2008 | 3 | 2 | 1001 | A | 30.74855 | 81.28783 | NEA/A | GA | BOD CNT |
| 1321 | | 2008 | 3 | 2 | 1001 | B | 30.74855 | 81.28783 | NEA/A | GA | BOD CNT |
| 2470 | | 2008 | 3 | 2 | 1132 | C | 30.52267 | 81.18198 | NEA/A | FL | |
| 3343 | | 2008 | 3 | 2 | 1132 | D | 30.52267 | 81.18198 | NEA/A | FL | BOD CNT |
| 3157 | | 2008 | 3 | 2 | 1132 | E | 30.52267 | 81.18198 | NEA/A | FL | |
| 2135 | | 2008 | 3 | 2 | 1132 | F | 30.52267 | 81.18198 | NEA/A | FL | BOD CNT |
| 1017 | | 2008 | 3 | 2 | 1132 | G | 30.52267 | 81.18198 | NEA/A | FL | |
| 1703 | | 2008 | 3 | 2 | 1140 | H | 30.51827 | 81.19949 | NEA/A | FL | MOPN, W/CALF |
| | 2008 Calf of 1703 | 2008 | 3 | 2 | 1140 | I | 30.51827 | 81.19949 | NEA/A | FL | CALF W/MOM |
| 1812 | | 2008 | 3 | 2 | 1152 | J | 30.54272 | 81.05254 | NEA/A | FL | BOD CNT, W/CALF |
| | 2008 Calf of 1812 | 2008 | 3 | 2 | 1152 | K | 30.54272 | 81.05254 | NEA/A | FL | BOD CNT, CALF W/MOM |
| | | 2008 | 3 | 3 | 1128 | A | 30.51752 | 81.29593 | NEA/A | FL | BODO, SAG |
| 2010 | | 2008 | 3 | 3 | 1128 | B | 30.51752 | 81.29593 | NEA/A | FL | BODO, SAG |
| | | 2008 | 3 | 3 | 1128 | C | 30.51752 | 81.29593 | NEA/A | FL | BODO, SAG |
| | | 2008 | 3 | 3 | 1128 | D | 30.51752 | 81.29593 | NEA/A | FL | BODO, SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|------------------|
| 1017 | | 2008 | 3 | 3 | 1137 | E | 30.5225 | 81.30741 | NEA/A | FL | |
| | | 2008 | 3 | 3 | 1137 | F | 30.5225 | 81.30741 | NEA/A | FL | |
| | | 2008 | 3 | 3 | 1137 | G | 30.5225 | 81.30741 | NEA/A | FL | |
| 2135 | | 2008 | 3 | 3 | 1137 | H | 30.5225 | 81.30741 | NEA/A | FL | |
| 1802 | | 2008 | 3 | 3 | 1152 | I | 30.51932 | 81.14878 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1802 | 2008 | 3 | 3 | 1152 | J | 30.51932 | 81.14878 | NEA/A | FL | CALF W/MOM |
| 2790 | | 2008 | 3 | 3 | 1405 | K | 30.43887 | 81.21582 | NEA/A | FL | LBTL, W/CALF |
| | 2008 Calf of 2790 | 2008 | 3 | 3 | 1405 | L | 30.43887 | 81.21582 | NEA/A | FL | LBTL, W/CALF |
| 3020 | | 2008 | 3 | 5 | 1311 | A | 30.77518 | 81.1219 | NEA/A | GA | W/CALF |
| | 2008 Calf of 3020 | 2008 | 3 | 5 | 1311 | B | 30.77518 | 81.1219 | NEA/A | GA | CALF W/MOM |
| 2042 | | 2008 | 3 | 5 | 1325 | C | 30.78492 | 81.10881 | NEA/A | GA | W/UNPH EG |
| 1308 | | 2008 | 3 | 5 | 1354 | D | 30.73628 | 81.15572 | NEA/A | GA | NURS, W/CALF |
| | 2008 Calf of 1308 | 2008 | 3 | 5 | 1354 | E | 30.73628 | 81.15572 | NEA/A | GA | CALF W/MOM, NURS |
| 2541 | | 2008 | 3 | 5 | 1405 | F | 30.74177 | 81.06088 | NEA/A | GA | WH CHN |
| 2750 | | 2008 | 3 | 5 | 1405 | G | 30.74177 | 81.06088 | NEA/A | GA | |
| 3142 | | 2008 | 3 | 5 | 1510 | H | 30.60025 | 81.1669 | NEA/A | FL | LOG, WH CHN |
| 3240 | | 2008 | 3 | 5 | 1510 | I | 30.60025 | 81.1669 | NEA/A | FL | LOG |
| 1278 | | 2008 | 3 | 5 | 1644 | J | 30.44025 | 81.06422 | NEA/A | FL | SAG |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-------------|
| 1423 | | 2008 | 3 | 5 | 1644 | K | 30.44025 | 81.06422 | NEA/A | FL | SAG |
| 2795 | | 2008 | 3 | 5 | 1644 | L | 30.44025 | 81.06422 | NEA/A | FL | SAG |
| 1427 | | 2008 | 3 | 6 | 1044 | A | 30.64124 | 80.99117 | NEA/A | FL | BOD CNT |
| 1428 | | 2008 | 3 | 6 | 1044 | B | 30.64124 | 80.99117 | NEA/A | FL | BOD CNT |
| 2750 | | 2008 | 3 | 6 | 1044 | C | 30.64124 | 80.99117 | NEA/A | FL | |
| 2541 | | 2008 | 3 | 6 | 1044 | D | 30.64124 | 80.99117 | NEA/A | FL | WH CHN |
| 3294 | | 2008 | 3 | 6 | 1122 | E | 30.62427 | 81.24841 | NEA/A | FL | BOD CNT |
| 3157 | | 2008 | 3 | 6 | 1122 | F | 30.62427 | 81.24841 | NEA/A | FL | BOD CNT |
| 1812 | | 2008 | 3 | 6 | 1224 | G | 30.60111 | 81.12772 | NEA/A | FL | W/CALF |
| | 2008 Calf of 1812 | 2008 | 3 | 6 | 1224 | H | 30.60111 | 81.12772 | NEA/A | FL | CALF W/MOM |
| 3240 | | 2008 | 3 | 6 | 1228 | I | 30.58787 | 81.17738 | NEA/A | FL | LOG |
| 3142 | | 2008 | 3 | 6 | 1228 | J | 30.58787 | 81.17738 | NEA/A | FL | LOG, WH CHN |
| 3123 | | 2008 | 3 | 10 | 1105 | A | 30.63858 | 81.386 | NEA/A | FL | |
| 3010 | | 2008 | 3 | 10 | 1105 | B | 30.63858 | 81.386 | NEA/A | FL | |
| 3123 | | 2008 | 3 | 10 | 1541 | C | 30.57225 | 81.39467 | NEA/A | FL | |
| 3010 | | 2008 | 3 | 10 | 1541 | D | 30.57225 | 81.39467 | NEA/A | FL | |
| | | 2008 | 3 | 26 | 1336 | A | 30.34332 | 81.17812 | NEA/A | FL | |
| 1150 | | 2008 | 3 | 26 | 1336 | B | 30.34332 | 81.17812 | NEA/A | FL | |

| EGNO | INTER-MATCH | YEAR | MONTH | DAY | TIME (L) | LETTER | LATITUDE | LONGITUDE | OBSERVER | AREA | BEHAVIORS |
|------|-------------|------|-------|-----|----------|--------|----------|-----------|----------|------|-----------|
| | | 2008 | 3 | 26 | 1344 | C | 30.34818 | 81.1788 | NEA/A | FL | SAG |
| | | 2008 | 3 | 26 | 1344 | D | 30.34818 | 81.1788 | NEA/A | FL | SAG |
| 1616 | | 2008 | 3 | 26 | 1344 | E | 30.34818 | 81.1788 | NEA/A | FL | SAG |
| 1019 | | 2008 | 3 | 26 | 1344 | F | 30.34818 | 81.1788 | NEA/A | FL | SAG |
| | | 2008 | 3 | 26 | 1344 | G | 30.34818 | 81.1788 | NEA/A | FL | SAG |
| 2142 | | 2008 | 3 | 27 | 1451 | A | 30.83341 | 81.00113 | NEA/A | GA | |
| | | 2008 | 3 | 27 | 1451 | B | 30.83341 | 81.00113 | NEA/A | GA | |