

**UNITED STATES AIR FORCE  
RESEARCH LABORATORY**

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**Summary of Marine Mammal  
Occurrence and Population Estimates  
in U.S. Coastal Waters Subject to  
Military Aircraft Overflights**

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This technical report has been reviewed and is approved for publication.

**FOR THE COMMANDER**



MARIS M. VIKMANIS  
Chief, Crew System Interface Division  
Air Force Research Laboratory

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## PREFACE

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## List of Acronyms and Abbreviations

### Marine Mammal Stock Identifiers

|                     |                                  |
|---------------------|----------------------------------|
| CA                  | California Stock                 |
| Can-EC              | Canadian East Coast Stock        |
| E. FL               | Eastern Florida Stock            |
| East N. Pacific     | Eastern North Pacific Stock      |
| East. Trop. Pacific | Eastern Tropical Pacific Stock   |
| GM/BF               | Gulf of Maine/Bay of Fundy Stock |
| OR/WA               | Oregon/Washington Stock          |
| WN ATL              | Western North Atlantic Stock     |

### General

|         |                                    |
|---------|------------------------------------|
| AFB     | Air Force Base                     |
| Aut-Wtr | Autumn-Winter                      |
| CV      | Coefficient of Variation           |
| EIS     | Environmental Impact Statement     |
| GOM     | Gulf of Mexico                     |
| NE      | Northeast                          |
| NW      | Northwest                          |
| NMFS    | National Marine Fisheries Service  |
| OCS     | Outer Continental Shelf            |
| SE      | Southeast                          |
| SEFSC   | Southeast Fisheries Science Center |
| Spr-Sum | Spring-Summer                      |
| Sum-Aut | Summer-Autumn                      |
| SW      | Southwest                          |
| SWFSC   | Southwest Fisheries Science Center |
| Wtr-Spr | Winter-Spring                      |
| WPAFB   | Wright Patterson Air Force Base    |

## OVERVIEW

This technical report summarizes marine mammal occurrence data for Wright Patterson Air Force Base (WPAFB), Aircraft Overflight Regions 1-5, as outlined below:

- (1) **NE PACIFIC: OR/WA** - the area from 42°N-50°N (i.e., Oregon/Washington coast), offshore to ~200 nmi plus a rectangular area measuring ~200 nmi wide by ~600 nmi long extending WNW from Seattle.
- (2) **SE PACIFIC: CA** - the area from ~32°N-40°N (i.e. California coast), offshore to ~200 nmi plus a rectangular area measuring ~200 nmi wide by ~600 nmi long extending SW from Los Angeles.
- (3) **GULF OF MEXICO** - the northern Gulf of Mexico (GOM) from the Florida Keys to the Texas-Mexico border, offshore to ~250 nmi.
- (4) **SW ATLANTIC: FL-SC** - the area from ~33°N-25°N (i.e. roughly from South Carolina to Miami), offshore to ~250 nmi.
- (5) **NW ATLANTIC: NC-ME** - the area from ~33°N-42°N (i.e. roughly from North Carolina to Maine), offshore to ~225 nmi plus a rectangular area measuring ~400 nmi wide by ~600 nmi long extending ENE from Cape Cod.

### Regional Maps

Maps for each of the five regions were formatted in ESRI ArcView, such that (if desired) the U.S. Air Force can easily incorporate them into other ecosystem management programs in development (e.g., McGinnis and Pruitt 1997). A map of each region is immediately followed by a marine mammal species summary table. Regions are ordered in a 'counter-clockwise' fashion, starting with the Northeast Pacific Region. Included is an enlarged map of the Southern California Bight, where more detailed information on pinniped occurrence in the Channel Islands is provided. Sanctuaries and reserves are plotted on regional maps as an additional aid for planning appropriate environmental mitigation to overflights. Additional detail on these protected areas is provided in the enclosed Appendix: Sanctuaries and Reserves Summary Tables.

### Species Summary Tables

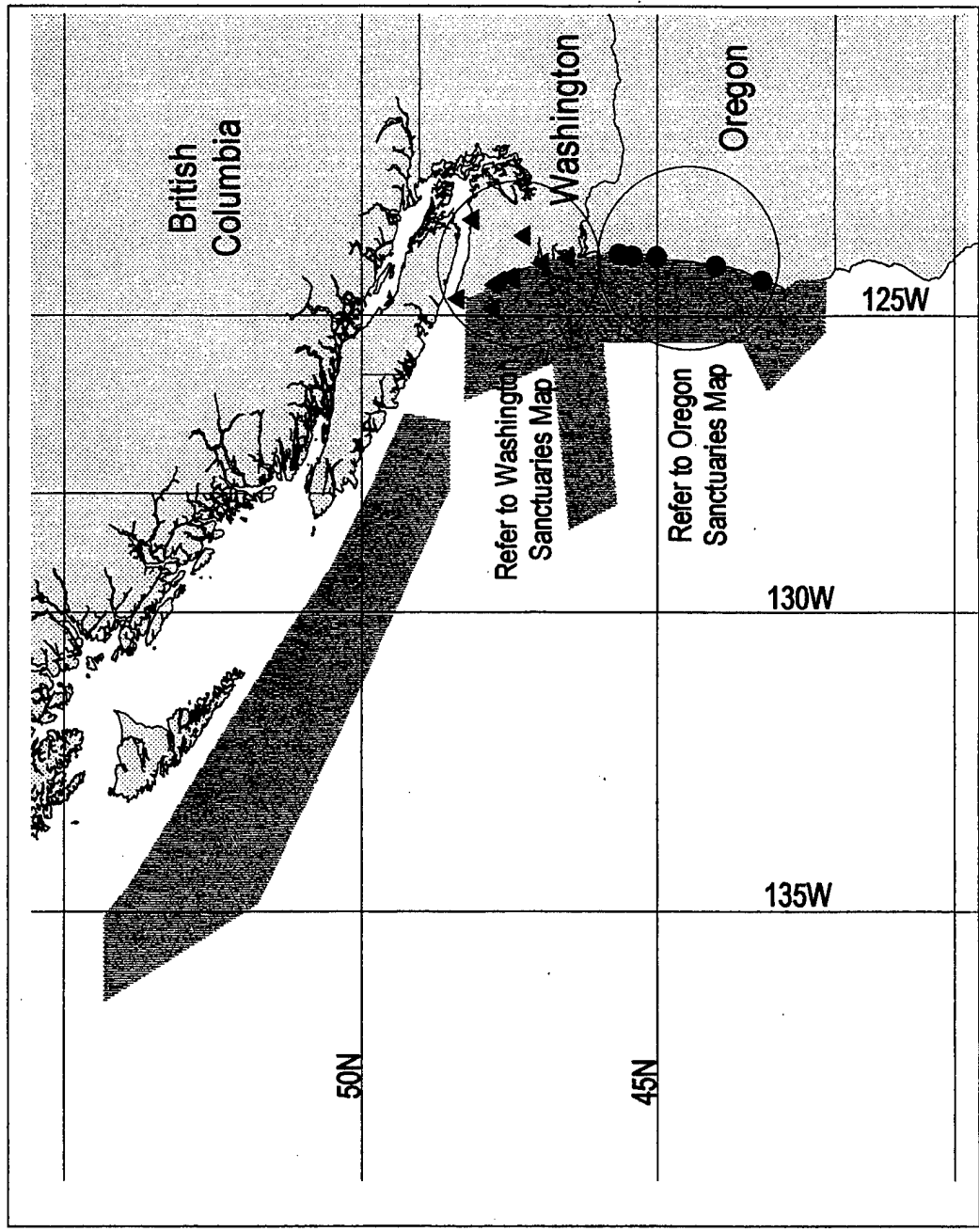
Species summary tables for each region list parameters identified as key to calculations of potential harassment to marine mammals caused by Air Force aircraft overflights. These include: (1) species common to each region, identified by common and scientific names; (2) stock identity and most recent estimate of population size; (3) Wtr-Spr/Sum-Aut seasonal occurrence index; (4) dive profile (i.e., approximate percentage of time at surface); and (5) pertinent comments. Except where noted, stock identity and population estimates can be referenced to the relevant National Marine Fisheries Service (NMFS) Administrative and Stock Assessment Reports (i.e., Barlow [1997], Barlow et al. [1997] and Hill et al. [1997] for Regions 1-2; Waring et al. [1997] for Regions 3-5). Seasonal occurrence and dive profile data can be referenced to the NMFS reports and various scientific reports.

**Qualifiers**

The information summarized in the species tables represent 'generalities'; some based on better information than others. For example, population estimates presented in the 'SE Pacific: CA table' are more reliable (i.e., more recent and based upon standardized survey protocol) than those for either the NW or SW Atlantic tables. In addition, seasonal occurrence and dive profile information presented in all tables are 'roundhouse guesses' based upon published information. Specific data on these parameters have been collected for a few marine mammal populations, but the quantity and quality of data varies considerably. In the case of 'dive profile', we purposely estimated the 'high end' of surface time in an effort to best represent the time that an animal might be at or near (i.e., within ~10 m) the surface. Furthermore, it is important to remember that marine mammals are not uniformly distributed in any of these regions at any time. Some species are highly seasonal, and their occurrence in fairly high numbers at a particular place and time can be somewhat predicted (e.g., blue whales off Monterey Bay, CA in summer and autumn; right whales in critical habitat nearshore GA and northern FL in winter; northern elephant seals molting at Channel Island rookeries in spring and summer). However, many species are itinerant travelers whose migratory patterns are not well understood, and for whom reliable information on calving, mating and feeding grounds is not available. Therefore, the seasonal occurrence indices and the dive profiles only provide a crude baseline for predictions of marine mammal occurrence.

**REGIONAL MAPS AND SPECIES SUMMARY TABLES**

# Northeast Pacific



- ▲ Washington Sanctuaries
- Oregon Sanctuaries
- ▨ NE Pacific Active Airspace (approx)

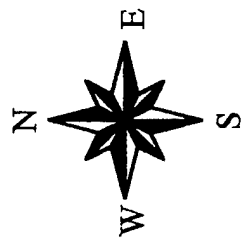


Table 1. Marine mammal population estimates, seasonal occurrences and dive profiles for Northeast Pacific (OR/WA).

| Common Name                  | Scientific Name                   | Stock            | Pop. Est. (CV)           | Seasonal Occurrence |          | Dive Profile   | Comment  |
|------------------------------|-----------------------------------|------------------|--------------------------|---------------------|----------|----------------|--|
|                              |                                   |                  |                          | Wtr-Spr             | Sum-Aut  |                |  |
| <b>MYSTICETES</b>            |                                   |                  |                          |                     |          |                |  |
| Gray whale                   | <i>Eschrichtius robustus</i>      | East. N. Pacific | 22,263 (0.09)*           | Common              | Common   | 20% at surface | Recent population estimate; some in area year-round with maximum numbers during migration pulses |
| Blue whale                   | <i>Balaenoptera musculus</i>      | OR/WA            | No estimate              | Uncommon            | Common   | 20% at surface | SOSUS detections offshore OR/WA July-January (Stafford 1995; Stafford and Fox 1998)              |
| Fin whale                    | <i>Balaenoptera physalus</i>      | OR/WA            | 136 (0.41)               | Uncommon            | Common   | 20% at surface | Year-round call detections via SOSUS (Stafford, pers. comm.)                                     |
| Minke whale                  | <i>Balaenoptera acutorostrata</i> | OR/WA            | 262 (1.00)               | Uncommon            | Common   | 20% at surface | Resident whales nearshore WA (Dorsey et al. 1990)  |
| Humpback whale               | <i>Megaptera novaeangliae</i>     | OR/WA            | 39 (0.42)                | Uncommon            | Common   | 30% at surface | OR: May-Nov; WA: July-Sep (Brueggeman 1992)  |
| Sei whale                    | <i>Balaenoptera borealis</i>      | East. N. Pacific | No estimate              | Uncommon            | Uncommon | 20% at surface | Pelagic distribution in temperate waters   |
| Northern right whale         | <i>Eubalaena glacialis</i>        | East. N. Pacific | No Estimate**            | Rare                | Rare     | 30% at surface | One seen offshore WA, May 1992 (Carretta et al. 1994)  |
| <b>ODONTOCETES</b>           |                                   |                  |                          |                     |          |                |  |
| Sperm whale                  | <i>Physeter macrocephalus</i>     | OR/WA            | 303 (0.57)               | Common              | Common   | 10% at surface | Offshore OR/WA coast spring & autumn; usually seaward of shelf                                   |
| Pygmy (or dwarf) sperm whale | <i>Kogia breviceps (or simus)</i> | OR/WA            | 1,376 (2.0)              | Uncommon            | Common   | 20% at surface | Usually seaward of shelf; no separate estimate for <i>K. simus</i>                               |
| Killer whale                 | <i>Orcinus orca</i>               | OR/WA            | 319 (0.80)               | Common              | Common   | 30% at surface | Cosmopolitan sp.; resident and transient pods offshore WA/Can. BC                                |
| Baird's beaked whale         | <i>Berardius bairdii</i>          | OR/WA            | 110 (0.41)               | Uncommon            | Common   | 10% at surface | Continental slope and basin habitat  |
| Beaked whales spp.           | <i>Mesoplodon spp.</i>            | OR/WA            | 2,438 (0.68)             | Unknown             | Unknown  | 10% at surface | spp. = 5 species; continental slope and basin habitat  |
| Risso's dolphin              | <i>Grampus griseus</i>            | OR/WA            | 7,065 (0.51)             | Uncommon            | Common   | 30% at surface | Continental slope and basin habitat  |
| Northern right whale dolphin | <i>Lissodelphis borealis</i>      | OR/WA            | 4,683 (0.77)             | Uncommon            | Common   | 30% at surface | Continental slope and basin habitat  |
| Short-beaked common dolphin  | <i>Delphinus delphis</i>          | OR/WA            | 11,194 (1.00)            | Uncommon            | Common   | 30% at surface | So. CA = shelf & slope; N. of Pt. Conception = slope and basin                                   |
| Striped dolphin              | <i>Stenella coeruleoalba</i>      | OR/WA            | 113 (2.00)               | Uncommon            | Common   | 30% at surface | Offshore waters, usually >100 nm from shore  |
| Pacific white-sided dolphin  | <i>Lagenorhynchus obliquidens</i> | OR/WA            | 7,180 (1.66)             | Uncommon            | Common   | 30% at surface | Continental shelf and slope water  |
| Dall's porpoise              | <i>Phocoenoides dalli</i>         | OR/WA            | 63,152 (0.78)            | Uncommon            | Common   | 30% at surface | So. CA = shelf & slope; N. of Pt. Conception = slope and basin                                   |
| Harbor porpoise              | <i>Phocoena phocoena</i>          | OR/WA Coastal    | 26,175 (0.21)***         | Common              | Common   | 30% at surface | 97% in water < 200m deep; no seasonal movements documented                                       |
|                              |                                   | Inland WA        | 3,352 (0.27)***          | Common              | Common   | 30% at surface | Puget Sound; Juan de Fuca & Georgia straits  |
| <b>PINNIPEDS</b>             |                                   |                  |                          |                     |          |                |  |
| California sea lion          | <i>Zalophus c. californianus</i>  | U.S.             | 167,000-188,000 (n/a)*** | Uncommon            | Common   | 30% at surface | Breed on Channel Is. May-June; Molt females Aug-Oct, males Nov-Feb                               |
| Harbor seal                  | <i>Phoca vitulina richardsi</i>   | OR/WA Coastal    | 27,131 (0.07)***         | Common              | Common   | 30% at surface | Breed So. CA islands & central CA shore March-May; Molt May-August                               |
|                              |                                   | Inland WA        | 16,253 (0.07)***         | Common              | Common   | 30% at surface |  |
| Northern elephant seal       | <i>Mirounga angustirostris</i>    | CA Breeding      | 84,000 (n/a)***          | Uncommon            | Common   | 10% at surface | Breed on Channel Is. Dec-March; Molt females Apr-May, males Jun-Aug                              |
| Northern fur seal            | <i>Callorhinus ursinus</i>        | San Miguel Is.   | 10,036 (n/a)***          | Uncommon            | Common   | 30% at surface | Breed San Miguel Is. June-Aug; Molt undetermined   |
| Steller sea lion             | <i>Eumetopias jubatus</i>         | E. AK/OR/WA/CA   | 37,746 (n/a)^            | Uncommon            | Common   | 30% at surface | Breed coastal OR June-July; Molt Aug-Sep   |
| <b>MUSTELIDS</b>             |                                   |                  |                          |                     |          |                |  |
| Sea otter                    | <i>Enhydra lutris lutris</i>      | WA               | 200-300^^                | Common              | Common   | 50% at surface | Small breeding colony offshore NE WA coast   |

**NOTES**

Population Estimates:  
 Barlow 1997: Table 5  
 \* Hobbs et al. in press  
 \*\* Carretta et al. 1994  
 \*\*\* Barlow 1997  
 ^ Hill et al. 1997  
 ^^ Benz 1996  
 (n/a) = not available

Seasonal Index:  
 Bartow 1995  
 Forney et al. 1995  
 Brueggeman (ed.) 1992

Dive Profile:  
 Leatherwood et al. 1983  
 Ridgway and Harrison 1985, 1989  
 Reeves et al. 1992  
 note: pinniped dive profile for 'at sea' interval only

# Southeast Pacific

- Southern California Sanctuaries
- ▲ Mid-California Sanctuaries
- ▨ SE Pacific Active Airspace (approx)

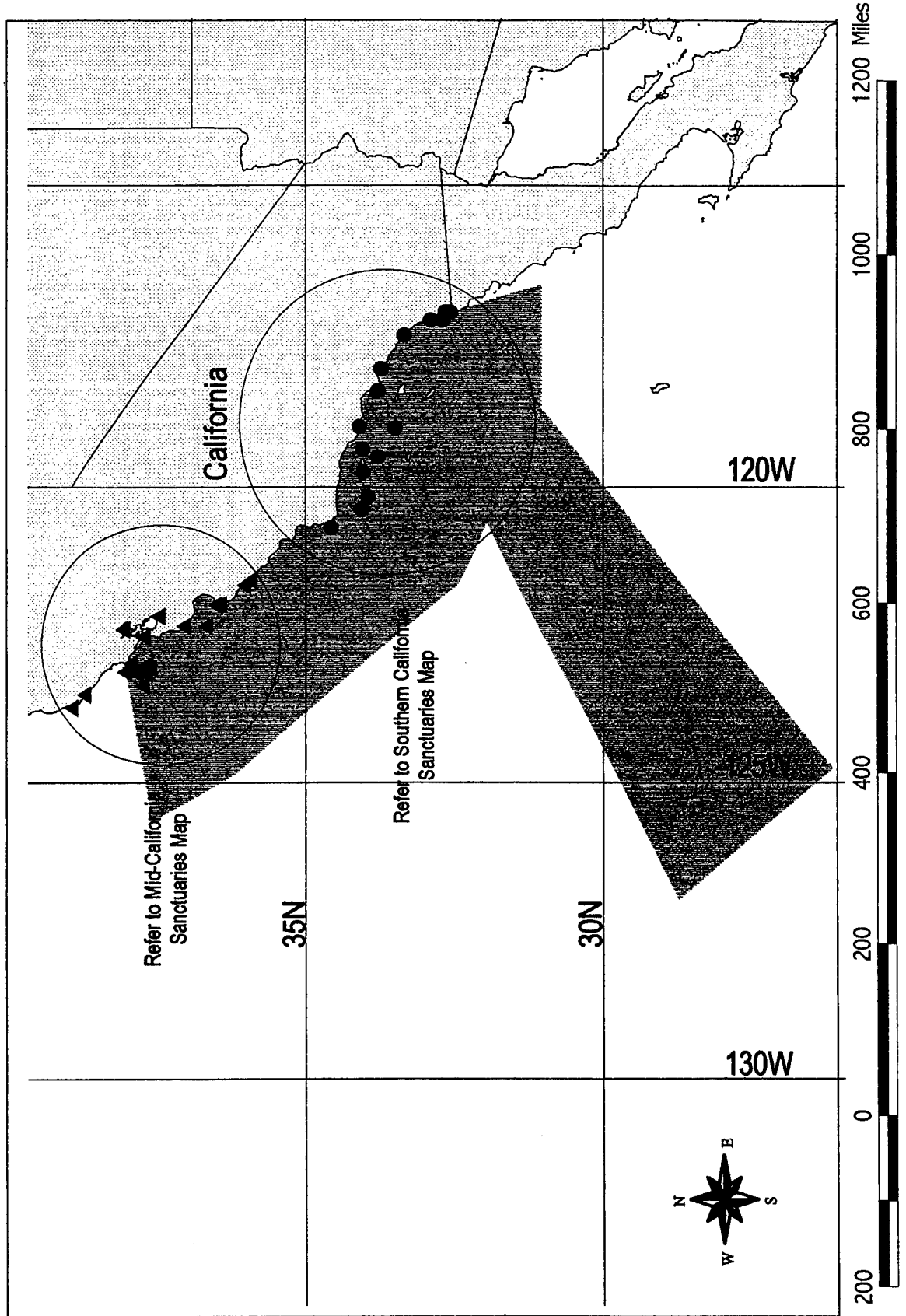


Table 2. Marine mammal population estimates, seasonal occurrences and dive profiles for Southeast Pacific (CA).

| Common Name                  | Scientific Name                         | Stock             | Pop. Est. (CV)           | Seasonal Index |          | Dive Profile   | Comment  |
|------------------------------|---|-------------------|--------------------------|----------------|----------|----------------|--|
|                              |   |                   |                          | Wtr-Spr        | Sum-Aut  |                |  |
| <b>MYSTICETES</b>            |   |                   |                          |                |          |                |  |
| Gray whale                   | <i>Eschrichtius robustus</i>            | East. N. Pacific  | 22,263 (0.09)*           | Common         | Uncommon | 20% at surface | Good/recent population estimate  |
| Blue whale                   | <i>Balaenoptera musculus</i>            | CA (1996)         | 2,146 (0.23)             | Uncommon       | Common   | 20% at surface | Good/recent population estimate  |
| Fin whale                    | <i>Balaenoptera physalus</i>            | CA (1996)         | 1,896 (0.59)             | Uncommon       | Common   | 20% at surface | Good/recent population estimate  |
| Minke whale                  | <i>Balaenoptera acutorostrata</i>       | CA (1996)         | 446 (0.44)               | Uncommon       | Common   | 20% at surface | Resident whales in shelf waters  |
| Humpback whale               | <i>Megaptera novaeangliae</i>           | CA (1996)         | 1,701 (0.33)             | Uncommon       | Common   | 30% at surface | Common offshore Santa Barbara  |
| Bryde's whale                | <i>Balaenoptera edeni</i>               | CA (1991/93)      | 24 (2.0)                 | Uncommon       | Uncommon | 20% at surface | Possible northern extent of ETP stock  |
| Sei (or Bryde's) whale       | <i>Balaenoptera borealis (or edeni)</i> | CA (1991/93)      | 36 (0.71)                | Uncommon       | Uncommon | 20% at surface | Pelagic distribution in temperate waters                                       |
| Northern right whale         | <i>Eubalaena glacialis</i>              | CA (1991/92)      | 16 (1.1)**               | Rare           | Rare     | 30% at surface | Coastal distribution; scattered sightings in recent years in coastal CA waters |
| <b>ODONTOCETES</b>           |   |                   |                          |                |          |                |  |
| Sperm whale                  | <i>Physeter macrocephalus</i>           | CA (1991/93)      | 1,231 (0.39)             | Common         | Common   | 10% at surface | Year-round offshore CA; usually seaward of shelf                               |
| Pygmy sperm whale            | <i>Kogia breviceps</i>                  | CA (1991/93)      | 3,145 (0.54)             | Uncommon       | Uncommon | 20% at surface | Usually seaward of shelf; no separate estimate for <i>K. simus</i>             |
| Killer whale                 | <i>Orcinus orca</i>                     | CA (1991/93)      | 747 (0.71)               | Uncommon       | Uncommon | 30% at surface | Cosmopolitan sp.; infrequent sightings offshore CA                             |
| Baird's beaked whale         | <i>Berardius bairdii</i>                | CA (1991/93)      | 380 (0.53)               | Uncommon       | Common   | 10% at surface | Continental slope and basin habitat  |
| Cuvier's beaked whale        | <i>Ziphius cavirostris</i>              | CA (1991/93)      | 9,163 (0.52)             | Unknown        | Unknown  | 10% at surface | Continental slope and basin habitat  |
| Beaked whales spp.           | <i>Mesoplodon spp.</i>                  | CA (1991/93)      | 1,378 (0.58)             | Unknown        | Unknown  | 10% at surface | Continental slope and basin habitat  |
| Risso's dolphin              | <i>Grampus griseus</i>                  | CA (1991/93)      | 10,720 (0.41)            | Common         | Uncommon | 30% at surface | So. CA = shelf & slope; N. of Pt. Conception = slope and basin                 |
| Short-finned pilot whale     | <i>Globicephala macrorhynchus</i>       | CA (1991/93)      | 1,004 (0.37)             | Common         | Uncommon | 30% at surface | So. CA population reduced post 1982 El Nino                                    |
| Northern right whale dolphin | <i>Lissodelphis borealis</i>            | CA (1996)         | 9,131 (0.77)             | Common         | Uncommon | 30% at surface | So. CA = shelf & slope; N. of Pt. Conception = slope and basin                 |
| Long-beaked common dolphin   | <i>Delphinus capensis</i>               | CA (1996)         | 72,251 (0.83)            | Uncommon       | Common   | 30% at surface | So. CA shelf, usually <50 nm from shore  |
| Short-beaked common dolphin  | <i>Delphinus delphis</i>                | CA (1991/93)      | 372,425 (0.22)           | Uncommon       | Common   | 30% at surface | So. CA = shelf & slope; N. of Pt. Conception = slope and basin                 |
| Striped dolphin              | <i>Stenella coeruleoalba</i>            | CA (1991/93)      | 24,910 (0.31)            | Uncommon       | Common   | 30% at surface | Offshore waters, usually >100 nm from shore                                    |
| Pacific white-sided dolphin  | <i>Lagenorhynchus obliquidens</i>       | CA (1996)         | 60,026 (0.84)            | Common         | Uncommon | 30% at surface | Continental shelf and slope water  |
| Bottlenose dolphin           | <i>Tursiops truncatus</i>               | CA (1991/93)      | 1,850 (0.50)             | Common         | Common   | 30% at surface | Continental shelf, usually S. of Pt. Conception and often < ~1 nm from shore   |
| Dall's porpoise              | <i>Phocoenoides dalli</i>               | CA (1996)         | 60,756 (0.50)            | Common         | Uncommon | 30% at surface | So. CA = shelf & slope; N. of Pt. Conception = slope and basin                 |
| Harbor porpoise              | <i>Phocoena phocoena</i>                | Central CA        | 4,120 (0.22)***          | Common         | Common   | 30% at surface | Pt. Conception & north, usually < 10 nm from shore                             |
| <b>PINNIPEDS</b>             |   |                   |                          |                |          |                |  |
| California sea lion          | <i>Zalophus c. californianus</i>        | U.S.              | 167,000-188,000 (n/a)*** | Common         | Common   | 30% at surface | Breed on Channel Is. May-June; Molt females Aug-Oct, males Nov-Feb             |
| Harbor seal                  | <i>Phoca vitulina richardsi</i>         | CA                | 30,293 (n/a)***          | Common         | Common   | 30% at surface | Breed So. CA islands & central shore March-May; Molt May-August                |
| Northern elephant seal       | <i>Mirounga angustirostris</i>          | CA Breeding       | 84,000 (n/a)***          | Common         | Uncommon | 10% at surface | Breed on Channel Is. Dec-March; Molt females Apr-May, males Jun-Aug            |
| Guadalupe fur seal           | <i>Arctocephalus townsendi</i>          | CA/Mexico         | 7,408 (n/a)***           | Uncommon       | Common   | 30% at surface | Haul out on Channel Is.; breed June-July in Mex; Molt undetermined             |
| Northern fur seal            | <i>Callorhinus ursinus</i>              | San Miguel Is.    | 10,036 (n/a)***          | Uncommon       | Common   | 30% at surface | Breed San Miguel Is. June-August; Molt undetermined                            |
| <b>MUSTELIDS</b>             |   |                   |                          |                |          |                |  |
| Sea otter                    | <i>Enhydra lutris nereis</i>            | Experimental pop. | < ~20^                   | Uncommon       | Uncommon | 50% at surface | Small population, with some breeding, near San Nicolas Is.                     |

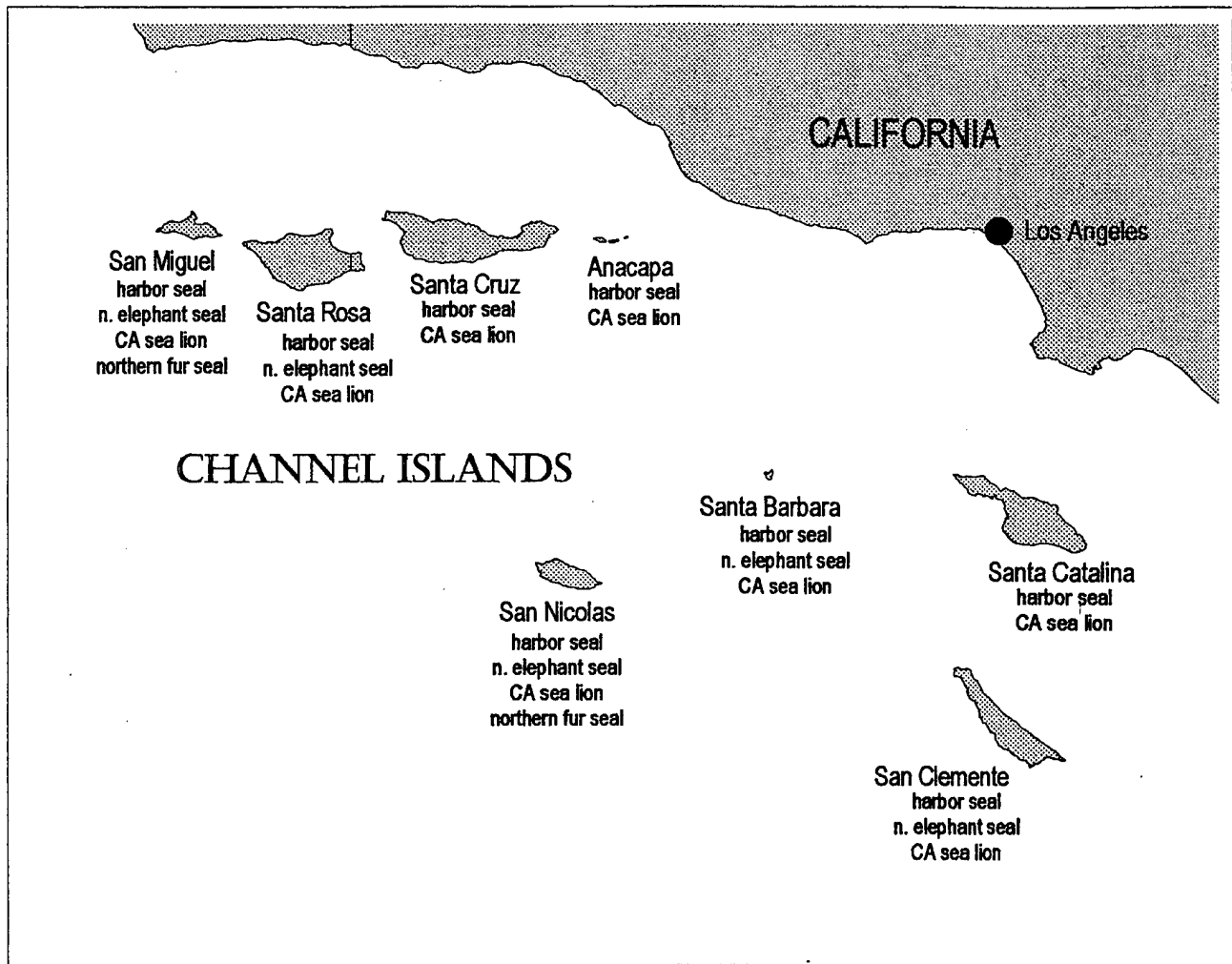
**NOTES**

**Population Estimates:**  
 Barlow 1997: Table 5  
 \* Hobbs et al. in press  
 \*\* Forney et al. 1995  
 \*\*\* Barlow et al. 1997  
 ^ Benz 1996  
 (n/a) = not available

**Seasonal Index:**  
 Barlow 1995  
 Forney et al. 1995

**Dive Profile:**  
 Leatherwood et al. 1983  
 Ridgway and Harrison 1985, 1989  
 Reeves et al. 1992  
 note: pinniped dive profile for 'at sea' interval only

# Pinnipeds of the Southern California Bight



Pinniped occurrence in the Southern California Bight. \* indicates juvenile.

| Species          |                  | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |
|------------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Harbor seal      | Primary behavior | feed         | feed         | pup/<br>mate | pup/<br>mate | molt         | molt         | molt         | molt         | feed         | feed         | feed         | feed         |
|                  | Sex/Age Class    | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           | ♂♀           |
| N. elephant seal | Primary behavior | pup/<br>mate | pup/<br>mate |              | molt         | molt         | molt         | molt         | molt         |              |              |              | pup/<br>mate |
|                  | Sex/Age Class    | ♂♀           | ♂♀           |              | ♀*           | ♀*           | ♂            | ♂            | ♂            |              |              |              | ♂♀           |
| CA sea lion      | Primary behavior | molt         | molt         |              |              | pup/<br>mate | pup/<br>mate | pup/<br>mate | feed         | molt         | molt         | molt         | molt         |
|                  | Sex/Age Class    | ♂            | ♂            |              |              | ♂♀           | ♂♀           | ♂♀           | ♀*           | ♀*           | ♀            | ♂            | ♂            |
| N. fur seal      | Primary behavior | feed         | feed         | feed         |              | pup/<br>mate | pup/<br>mate | pup/<br>mate | pup/<br>mate | pup/<br>mate | pup/<br>mate | pup/<br>mate |              |
|                  | Sex/Age Class    | ♀*           | ♀*           | ♀*           |              | ♂            | ♂♀           | ♀            | ♀            | ♀            | ♀            | ♀            |              |

# Gulf of Mexico

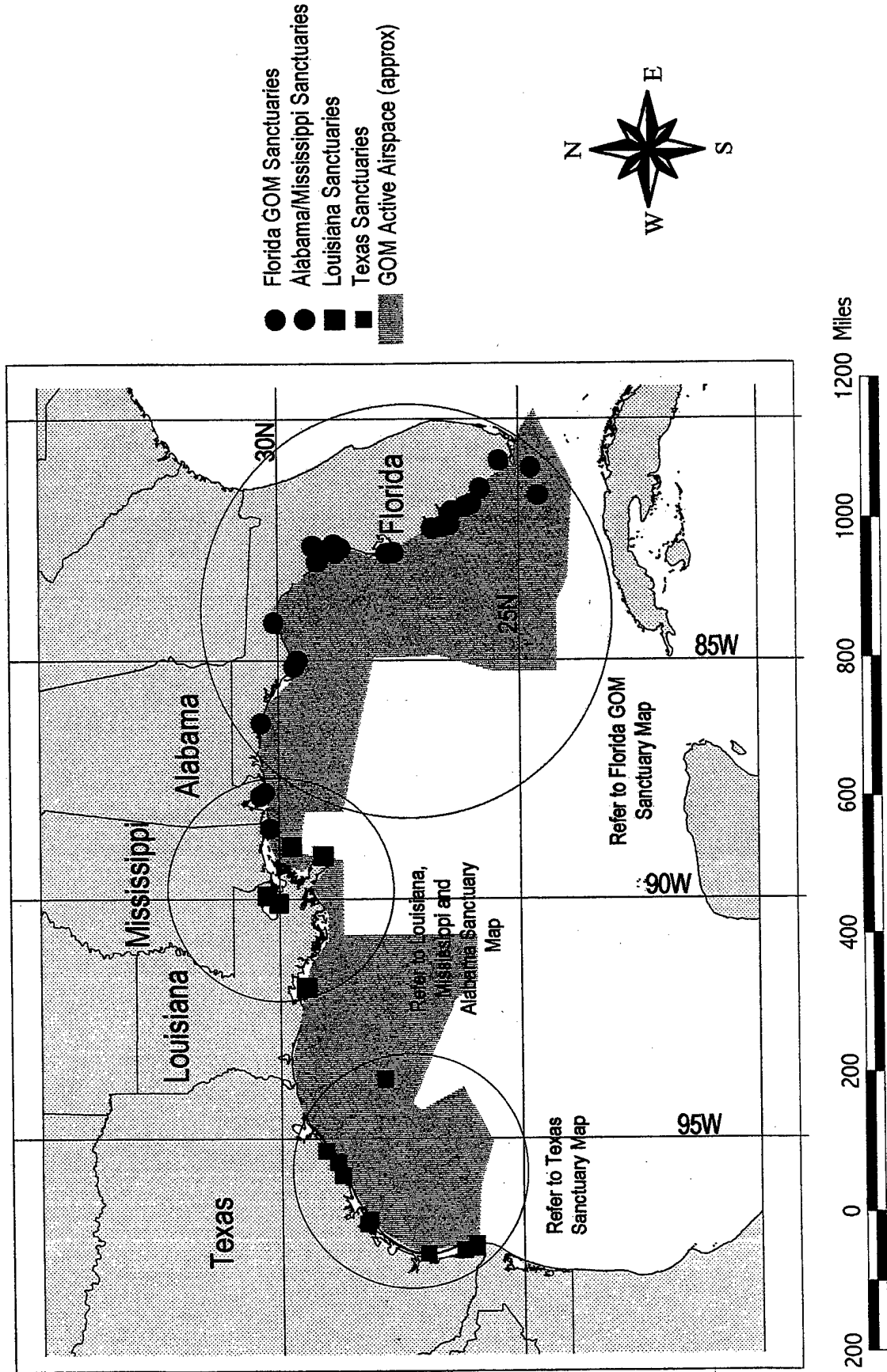


Table 3. Marine mammal population estimates, seasonal occurrences and dive profiles for Gulf of Mexico (TX to FL).

| Common Name                 | Scientific Name                   | Stock      | Pop. Est. (CV)              | Seasonal | Index    | Dive Profile   | Comment  |
|-----------------------------|-----------------------------------|------------|-----------------------------|----------|----------|----------------|--|
|                             |                                   |            |                             | Spr-Sum  | Aut-Win  |                |  |
| <b>MYSTICETES</b>           |                                   |            |                             |          |          |                |  |
| Fin whale                   | <i>Balaeoptera physalus</i>       | N GOM      | No estimate*                | Rare     | Rare     | 20% at surface | Few sightings on shelf between FL panhandle and LA             |
| Minke whale                 | <i>Balaenoptera acutorostrata</i> | N GOM      | No estimate*                | Rare     | Rare     | 20% at surface | Coastal sightings, especially FL Keys                          |
| Humpback whale              | <i>Megaptera novaeangliae</i>     | N GOM      | No estimate*                | Rare     | Rare     | 20% at surface | West FL coast to LA  |
| Bryde's whale               | <i>Balaenoptera edeni</i>         | N GOM      | 35 (1.10)                   | Common   | Common   | 20% at surface | Shelf edge DeSoto Canyon and offshore FL panhandle             |
| <b>ODONTOCETES</b>          |                                   |            |                             |          |          |                |  |
| Sperm whale                 | <i>Physeter macrocephalus</i>     | N GOM      | 530 (0.31)                  | Common   | Common   | 10% at surface | Most common large whale in GOM; usually in slope/basin habitat |
| Dwarf/Pygmy Sperm whale     | <i>Kogia spp.</i>                 | N GOM      | 547 (0.28)                  | Common   | Common   | 20% at surface | Continental slope and basin habitat                            |
| Killer whale                | <i>Orcinus orca</i>               | N GOM      | 277 (0.42)                  | Common   | Uncommon | 30% at surface | Continental slope and basin habitat                            |
| Pygmy Killer whale          | <i>Feresa attenuata</i>           | N GOM      | 518 (0.81)                  | Uncommon | Uncommon | 30% at surface | Continental slope and basin habitat                            |
| False Killer whale          | <i>Pseudorca crassidens</i>       | N GOM      | 381 (0.62)                  | Common   | Common   | 30% at surface | Continental slope and basin habitat                            |
| Cuvier's Beaked whale       | <i>Ziphius cavirostris</i>        | N GOM      | 30 (0.50)                   | Common   | Common   | 10% at surface | Continental slope and basin habitat                            |
| Beaked whales spp.          | <i>Mesoplodon spp.</i>            | N GOM      | 117 (0.38)                  | Unknown  | Unknown  | 10% at surface | Continental slope and basin habitat                            |
| Risso's dolphin             | <i>Grampus griseus</i>            | N GOM      | 2,749 (0.27)                | Common   | Uncommon | 30% at surface | Continental shelf and slope habitat                            |
| Short-finned Pilot whale    | <i>Globicephala macrorhynchus</i> | N GOM      | 353 (0.89)                  | Uncommon | Uncommon | 30% at surface | Continental shelf and slope habitat                            |
| Melon-headed whale          | <i>Peponocephala electra</i>      | N GOM      | 3,965 (0.39)                | Common   | Common   | 30% at surface | Continental slope and basin habitat                            |
| Fraser's dolphin            | <i>Lagenodelphis hosei</i>        | N GOM      | 127 (0.90)                  | Common   | Common   | 30% at surface | Continental slope and basin habitat                            |
| Atlantic Spotted dolphin    | <i>Stenella frontalis</i>         | N GOM      | 3,213 (0.44)                | Common   | Uncommon | 30% at surface | Continental shelf and shelf-edge habitat                       |
| Pantropical Spotted dolphin | <i>Stenella attenuata</i>         | N GOM      | 31,320 (0.20)               | Common   | Common   | 30% at surface | Continental slope and basin habitat                            |
| Striped dolphin             | <i>Stenella coeruleoalba</i>      | N GOM      | 4,858 (0.44)                | Common   | Common   | 30% at surface | Continental slope and basin habitat                            |
| Spinner dolphin             | <i>Stenella longirostris</i>      | N GOM      | 6,316 (0.43)                | Uncommon | Uncommon | 30% at surface | Continental slope and basin habitat                            |
| Clymene dolphin             | <i>Stenella clymene</i>           | N GOM      | 5,571 (0.37)                | Common   | Common   | 30% at surface | Continental slope and basin habitat                            |
| Rough-toothed dolphin       | <i>Steno bredanensis</i>          | N GOM      | 852 (0.31)                  | Uncommon | Uncommon | 30% at surface | Continental slope and basin habitat                            |
| Bottlenose dolphin          | <i>Tursiops truncatus</i>         | GOM (OCS)  | 50,247 (0.18)               | Common   | Common   | 30% at surface | Outer Continental Shelf stock; habitat ~18m-183m isobaths      |
|                             |                                   | GOM (SES)  | 5,618 (0.26)                | Common   | Common   | 30% at surface | Shelf Edge & Slope stock; habitat >183m isobath                |
|                             |                                   | W GOM (CS) | 3,499 (0.21)                | Common   | Common   | 30% at surface | Coastal Stock; habitat <18m isobath                            |
|                             |                                   | N GOM (CS) | 4,191 (0.21)                | Common   | Common   | 30% at surface | Coastal Stock; habitat <18m isobath                            |
|                             |                                   | E GOM (CS) | 9,912 (0.12)                | Common   | Common   | 30% at surface | Coastal Stock; habitat <18m isobath                            |
|                             |                                   | GOM (S&E)  | combined est. = 5,141 (n/a) | Common   | Common   | 30% at surface | Sound and Estuarine Stocks; discrete geo-based communities     |
| <b>SIRENIAN</b>             |                                   |            |                             |          |          |                |  |
| Florida manatee             | <i>Trichechus manatus</i>         | W. FL      | count = 949** (n/a)         | Common   | Common   | 90% at surface | Best count; associated w/ warm coastal and riverine waters     |

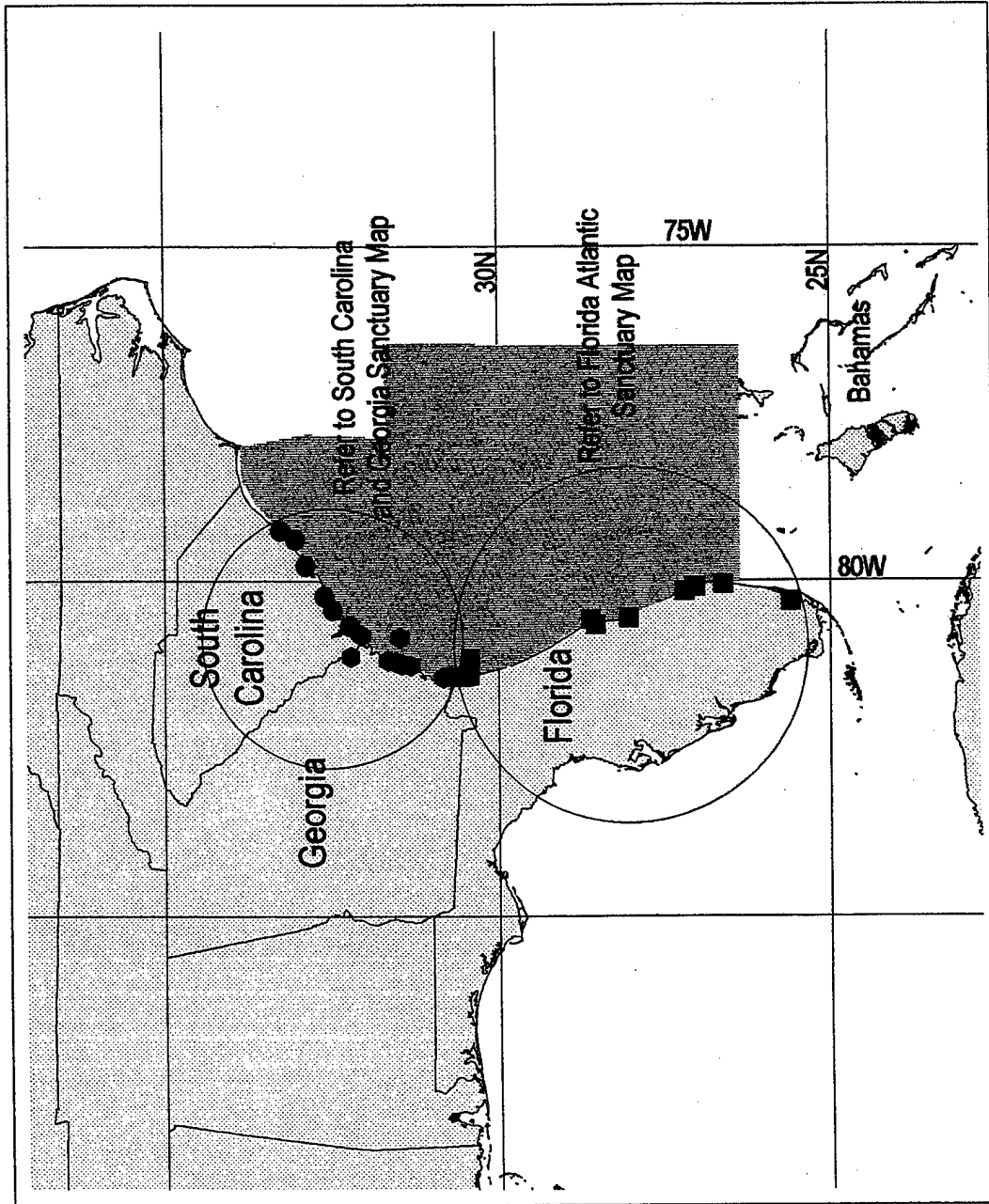
**NOTES**

Population Estimates:  
 Waring et al. 1997  
 \*Jefferson and Schiro 1997  
 \*\*USFWS 1995  
 (n/a) = not available

Seasonal Index:  
 Jefferson and Schiro 1997  
 Jefferson 1996

Dive Profile:  
 Leatherwood et al. 1983  
 Ridgway and Harrison 1985, 1989  
 Reeves et al. 1992

# Southwest Atlantic



- South Carolina Sanctuaries
- Georgia Sanctuaries
- Florida Atlantic Sanctuaries
- ▨ SW Atlantic Active Airspace (approx)

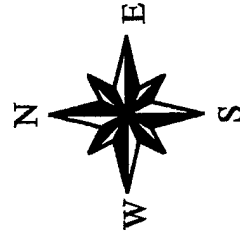


Table 4. Marine mammal population estimates, seasonal occurrences and dive profiles for Southwest Atlantic (FL to SC).

| Common Name                          | Scientific Name                   | Stock       | Pop. Est. (CV)         | Seasonal Index |          | Dive Profile   | Comment  |
|--------------------------------------|-----------------------------------|-------------|------------------------|----------------|----------|----------------|--|
|                                      |                                   |             |                        | Wtr-Spr        | Sum-Aut  |                |  |
| <b>MYSTICETES</b>                    |                                   |             |                        |                |          |                |  |
| Blue whale                           | <i>Balaenoptera musculus</i>      | WN ATL      | No estimate            | Rare           | Rare     | 20% at surface | No population estimate for waters south of Cape Hatteras; calls tracked via SOSUS (Gagnon and Clark 1993)                |
| Fin whale                            | <i>Balaenoptera physalus</i>      | WN ATL      | 2,700 (0.59)           | Common         | Uncommon | 20% at surface | Partial-range (1991-92) population estimate, calve mid-Atlantic Oct-Jan  |
| Sei whale                            | <i>Balaenoptera borealis</i>      | WN ATL      | 253 (0.63)             | Common         | Uncommon | 20% at surface | Poor/old population estimate for spring season (CeTAP 1978-82)   |
| Minke whale                          | <i>Balaenoptera acutorostrata</i> | CAN EC      | 2,650 (0.31)           | Common         | Uncommon | 20% at surface | Partial-range (1991-92) population estimate for one (CAN EC) of four stocks identified in the North Atlantic             |
| Humpback whale                       | <i>Megaptera novaeangliae</i>     | WN ATL      | 5,543 (0.16)           | Common         | Uncommon | 30% at surface | Partial range-estimate; winter in Caribbean north of Dominican Republic to waters near Bermuda                           |
| Northern right whale                 | <i>Eubalaena glacialis</i>        | WN ATL      | Census = 295 (n/a)     | Common         | Uncommon | 40% at surface | Census (295 photo-ID individuals) is <b>minimum estimate</b> ; critical breeding habitat offshore northern FL & south GA |
| <b>ODONTOCETES</b>                   |                                   |             |                        |                |          |                |  |
| Sperm whale                          | <i>Physeter macrocephalus</i>     | WN ATL      | 2,698 (0.67)           | Common         | Uncommon | 10% at surface | 1995 population estimate; females and juveniles in subtropics FL to Caribbean (Watkins and Moore 1982)                   |
| Dwarf/Pygmy sperm whale              | <i>Kogia spp.</i>                 | WN ATL      | 420 (0.60)             | Unknown        | Unknown  | 20% at surface | 1992 population estimate for Miami-to-Cape Hatteras from line-transect vessel survey                                     |
| Killer whale                         | <i>Orcinus orca</i>               | WN ATL      | No estimate            | Uncommon       | Uncommon | 30% at surface | Largest single sighting = 40 whales in southern Gulf of Maine, September 1979  |
| Pygmy killer whale                   | <i>Feresa attenuata</i>           | WN ATL      | No estimate            | Unknown        | Unknown  | 30% at surface | Largest single sighting = 6 whales during 1992 Miami-to-Cape Hatteras line-transect vessel survey                        |
| Cuvier's beaked whale                | <i>Ziphius cavirostris</i>        | WN ATL      | No estimate            | Unknown        | Unknown  | 10% at surface | Cosmopolitan distribution; generally seaward of continental slope  |
| Beaked whales spp.                   | <i>Mesoplodon spp.</i>            | WN ATL      | 1,519 (0.69)           | Unknown        | Unknown  | 10% at surface | 1995 population estimate for VA-Gulf of St. Lawrence survey; strandings to FL coast                                      |
| Risso's dolphin                      | <i>Grampus griseus</i>            | WN ATL      | 16,818 (0.52)          | Common         | Uncommon | 30% at surface | Associated w/ Gulf Stream north wall & warm core rings   |
| Short-finned pilot whale             | <i>Globicephala macrorhynchus</i> | WN ATL      | 749 (0.64)             | Common         | Uncommon | 30% at surface | Associated w/ tropical-warm temperate waters   |
| Common dolphin                       | <i>Delphinus delphis</i>          | WN ATL      | 22,215 (0.45)          | Common         | Uncommon | 30% at surface | Associated w/ tropical-temperate waters  |
| Atlantic/Pantropical spotted dolphin | <i>Stenella spp.</i>              | WN ATL      | 4,772 (1.27)           | Common         | Common   | 30% at surface | Associated w/ tropical-warm temperate waters   |
| Striped dolphin                      | <i>Stenella coeruleoalba</i>      | WN ATL      | 31,669 (0.73)          | Common         | Common   | 30% at surface | Associated w/ tropical-temperate waters; revised CeTAP estimate (1982)   |
| Spinner dolphin                      | <i>Stenella longirostris</i>      | WN ATL      | No estimate            | Uncommon       | Uncommon | 30% at surface | Few sightings (presumably) due to offshore distribution  |
| Bottlenose dolphin                   | <i>Tursiops truncatus</i>         | WN ATL (OS) | 13,453 (0.54)          | Common         | Common   | 30% at surface | Offshore Stock - associated w/ continental shelf break; strandings south to FL   |
|                                      |                                   | WN ATL (CS) | High count = 815 (n/a) | Common         | Common   | 30% at surface | Coastal Stock - associated w/ continental shelf; count from NC-FL  |
| <b>PINNIPEDS</b>                     |                                   |             |                        |                |          |                |  |
| Harbor seal                          | <i>Phoca vitulina</i>             | WN ATL      | Count = 28,810 (n/a)   | Uncommon       | Uncommon | 30% at surface | Maine coast count; associated w/ temperate & subpolar waters; sightings and strandings south to GA                       |
| Hooded seal                          | <i>Cystophora cristata</i>        | WN ATL      | 400,000-450,000        | Uncommon       | Uncommon | 30% at surface | Range as far south as Puerto Rico and FL   |
| <b>SIRENIAN</b>                      |                                   |             |                        |                |          |                |  |
| Florida manatee                      | <i>Trichechus manatus</i>         | E. FL       | Count = 907** (n/a)    | Common         | Common   | 90% at surface | Best count; associated w/ warm coastal and riverine waters   |

**NOTES**

**Population Estimates:**  
 Waring et al. 1997  
 \*\* USFSW 1995

**Seasonal Index:**  
 Waring et al. 1997  
 Leatherwood et al. 1983

**Dive Profile:**  
 Leatherwood et al. 1983  
 Ridgway and Harrison 1985, 1989  
 Reeves et al. 1992  
 note: pinniped dive profile for at sea' interval only

# Northwest Atlantic

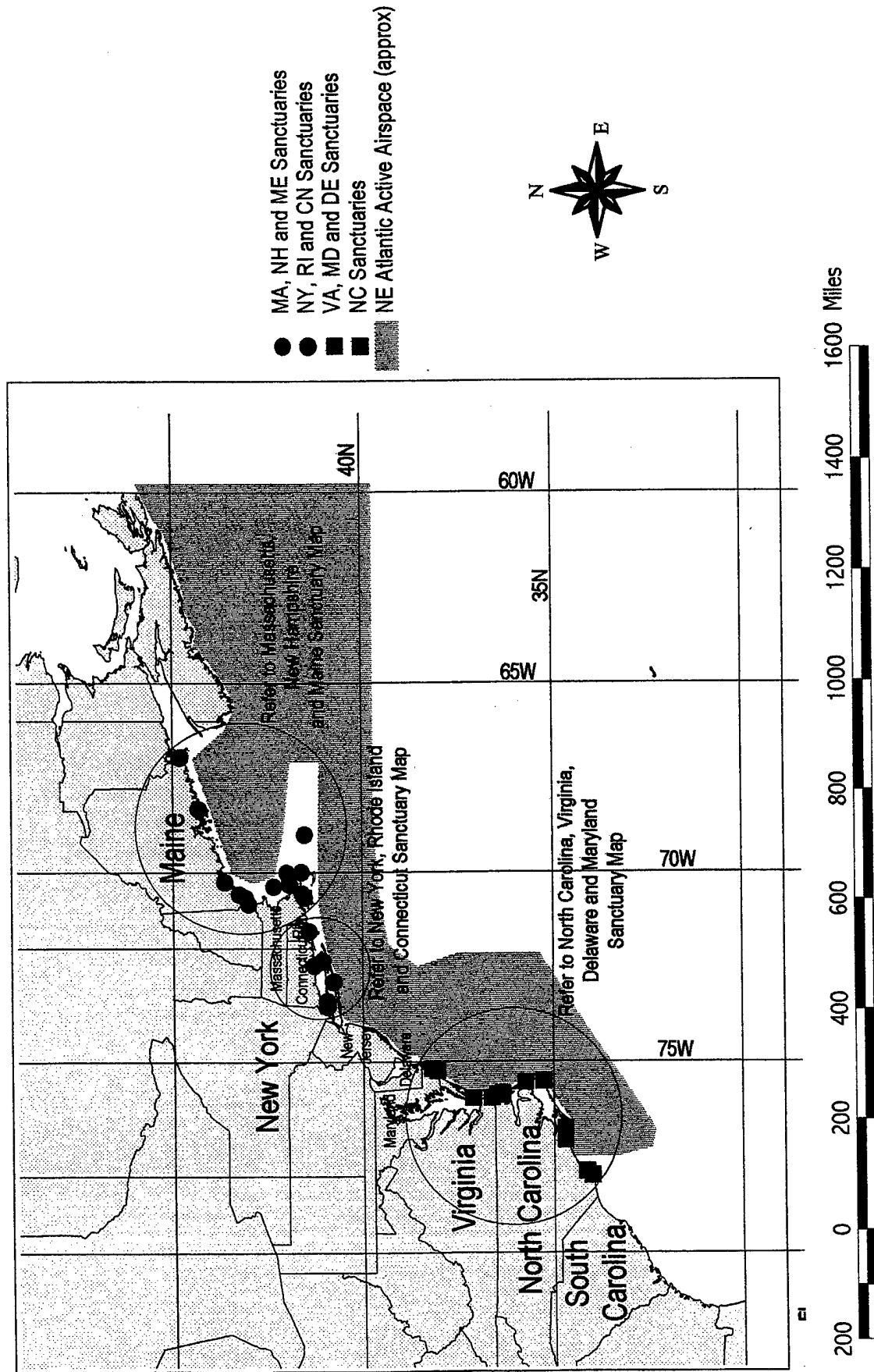


Table 5. Marine mammal population estimates, seasonal occurrences and dive profiles for Northwest Atlantic (NC to ME).

| Common Name                              | Scientific Name                   | Stock                     | Pop. Est. (CV)                  | Seasonal Index   |                    | Dive Profile   | Comment   |
|--|-----------------------------------|---------------------------|---------------------------------|------------------|--------------------|----------------|---|
|  |                                   |                           |                                 | Wtr-Spr          | Sum-Aut            |                |   |
| <b>MYSTICETES</b>                        |                                   |                           |                                 |                  |                    |                |   |
| Blue whale                               | <i>Balaenoptera musculus</i>      | WN ATL                    | Count = 308 (n/a)               | Uncommon         | Uncommon           | 20% at surface | Catalog of 308 photo ID individuals from Gulf of St. Lawrence area  |
| Fin whale                                | <i>Balaenoptera physalus</i>      | WN ATL                    | 2,700 (0.59)                    | Common           | Common             | 20% at surface | Partial-range (1991-92) population estimate; calve mid-Atlantic Oct-Jan   |
| Sei whale                                | <i>Balaenoptera borealis</i>      | WN ATL                    | 253 (0.63)                      | Uncommon         | Common             | 20% at surface | Poor/old population estimate for spring season (CeTAP 1978-82)  |
| Minke whale                              | <i>Balaenoptera acutorostrata</i> | CAN EC                    | 2,650 (0.31)                    | Uncommon         | Common             | 20% at surface | Partial-range (1991-92) population estimate for one (CAN EC) of four stocks identified in the North Atlantic  |
| Humpback whale                           | <i>Megaptera novaeangliae</i>     | WN ATL                    | 5,543 (0.16)                    | Uncommon         | Common             | 30% at surface | Partial-range estimate; five feeding-aggregations in WN ATL   |
| Northern right whale                     | <i>Eubalaena glacialis</i>        | WN ATL                    | Census = 295 (n/a)              | Uncommon         | Common             | 40% at surface | Census (295 photo ID individuals) is a minimum estimate; critical feeding habitat offshore MA   |
| <b>ODONTOCETES</b>                       |                                   |                           |                                 |                  |                    |                |   |
| Sperm whale                              | <i>Physeter macrocephalus</i>     | WN ATL                    | 2,698 (0.67)                    | Uncommon         | Common             | 10% at surface | 1995 pop. estimate; whales generally seaward of shelf and often associated with edge and warm core eddies of the Gulf Stream (Waring et al. 1993; Griffin 1998) |
| Dwarf/Pygmy sperm whale                  | <i>Kogia spp.</i>                 | WN ATL                    | 420 (0.60)                      | Unknown          | Unknown            | 20% at surface | 1992 population estimate for Miami-to-Cape Hatteras from line-transect vessel survey  |
| Killer whale                             | <i>Orcinus orca</i>               | WN ATL                    | No estimate                     | Uncommon         | Uncommon           | 30% at surface | Largest single sighting = 40 whales in southern Gulf of Maine, September 1979   |
| Pygmy killer whale                       | <i>Feresa attenuata</i>           | WN ATL                    | No estimate                     | Unknown          | Unknown            | 30% at surface | Largest single sighting = 6 whales during 1992 Miami-to-Cape Hatteras line-transect vessel survey   |
| Northern bottlenose whale                | <i>Hyperoodon ampullatus</i>      | WN ATL                    | No estimate                     | Rare             | Rare               | 10% at surface | Pop est. = 230 (95% CI= 160-360) for 'the Gully', a discrete depth feature N. of Sable Is. Nova Scotia CAN (Whitehead et al. 1997)                              |
| Cuvier's beaked whale                    | <i>Ziphius cavirostris</i>        | WN ATL                    | No estimate                     | Rare             | Rare               | 10% at surface | Considered rare off NE U.S. coast; most sightings in late spring or summer usually along continental shelf edge   |
| Beaked whales spp.                       | <i>Mesoplodon spp.</i>            | WN ATL                    | 1,519 (0.69)                    | Unknown          | Unknown            | 10% at surface | 1995 population estimate for VA-Gulf of St. Lawrence survey   |
| Risso's dolphin                          | <i>Grampus griseus</i>            | WN ATL                    | 16,818 (0.52)                   | Common           | Common             | 30% at surface | Associated w/ Gulf Stream north wall & warm core rings  |
| Long/Short-finned pilot whale            | <i>Globicephala spp.</i>          | WN ATL                    | 8,176 (0.65)                    | Common           | Common             | 30% at surface | Associated w/ Gulf Stream north wall & thermal fronts   |
| White-sided dolphin                      | <i>Lagenorhynchus acutus</i>      | WN ATL                    | 27,200 (0.43)                   | Uncommon         | Common             | 30% at surface | Associated w/ temperate and sub-polar waters; continental shelf, to ~100m depth contour   |
| White-beaked dolphin                     | <i>Lagenorhynchus albirostris</i> | WN ATL                    | 573 (0.69)                      | Common           | Common             | 30% at surface | Poor/old population estimate for spring season (CeTAP 1978-82); associated w/ temperate and sub-polar waters  |
| Common dolphin                           | <i>Delphinus delphis</i>          | WN ATL                    | 22,215 (0.45)                   | Uncommon         | Common             | 30% at surface | Associated w/ tropical-temperate waters   |
| Atlantic (& pantropical) spotted dolphin | <i>Stenella spp.</i>              | WN ATL                    | 4,772 (1.27)                    | Uncommon         | Common             | 30% at surface | Associated w/ tropical-warm temperate waters  |
| Striped dolphin                          | <i>Stenella coeruleoalba</i>      | WN ATL                    | 31,669 (0.73)                   | Uncommon         | Common             | 30% at surface | Associated w/ tropical-temperate waters   |
| Spinner dolphin                          | <i>Stenella longirostris</i>      | WN ATL                    | No estimate                     | Rare             | Rare               | 30% at surface | Few sightings (presumably) due to offshore distribution   |
| Bottlenose dolphin                       | <i>Tursiops truncatus</i>         | WN ATL (OS)               | 13,453 (0.54)                   | Common           | Common             | 30% at surface | Offshore Stock - associated w/ continental shelf break; July-Sep '95 estimate VA-Gulf St. Lawrence  |
|  |                                   | WN ATL (CS)               | High count = 1,667 (n/a)        | Common           | Common             | 30% at surface | Coastal Stock - associated w/ continental shelf; count from NC to NJ  |
| Harbor porpoise                          | <i>Phocoena phocoena</i>          | GM/BF                     | 54,300 (0.14)                   | Uncommon         | Common             | 30% at surface | Gulf of Maine/Bay of Fundy stock; average of 1991, 1992 and 1995 population estimates; concentrate nearshore GM in summer                                       |
| <b>PINNIPEDS</b>                         |                                   |                           |                                 |                  |                    |                |   |
| Harbor seal                              | <i>Phoca vitulina</i>             | WN ATL                    | Count = 28,810 (n/a)            | Common           | Common             | 30% at surface | Summer 1993 Maine coast count; assoc. w/ temperate & subpolar waters; pup/breed in May-June   |
| Gray seal                                | <i>Halichoerus grypus</i>         | Sable Is. to Gulf St. Law | Count = 143,000 (n/a)           | Common           | Uncommon           | 30% at surface | 1993-1994 population estimates; pup/breed from late Sep. to early March; Molt May-June  |
|  |                                   | Maine coast offshore MA   | 500-1000<br>Count = 2,035 (n/a) | Common<br>Common | Uncommon<br>Common |                |   |
| Harp seal                                | <i>Phoca groenlandica</i>         | N. Atlantic               | 3 million                       | Common           | Uncommon           | 30% at surface | Population estimate for 1990; pup/breed from mid-Feb to April; Molt April   |
| Hooded seal                              | <i>Cystophora cnstata</i>         | WN ATL                    | 400,000-450,000                 | Common           | Uncommon           | 30% at surface | Population estimate from 'pup production' model (Stenson 1993); highly migratory; pup/breed in February   |

**NOTES**

**Population Estimates:**

Waring et al. 1997  
(n/a) = not available

**Seasonal Index:**

Waring et al. 1997  
Leatherwood et al. 1983

**Dive Profile:**

Leatherwood et al. 1983  
Ridgway and Harrison 1985, 1989  
Reeves et al. 1992

note: pinniped dive profile for 'at sea' interval only

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**APPENDIX**

**SANCTUARIES AND RESERVES SUMMARY TABLES**

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## OVERVIEW

This appendix presents information on a representative sample of coastal sanctuaries and reserves from each of the five regions of interest to the Air Force. Note that this is not a comprehensive list. There are sanctuaries and reserves that have not been included in this appendix for assorted reasons, including small geographic size, purpose or mission, and/or lack of information. This appendix is intended to acquaint Air Force personnel with the varied and numerous natural areas found along the coastlines of the contiguous United States and some of the marine animals that occur within them. Information in this appendix will aid planning and mitigation of various Air Force activities.

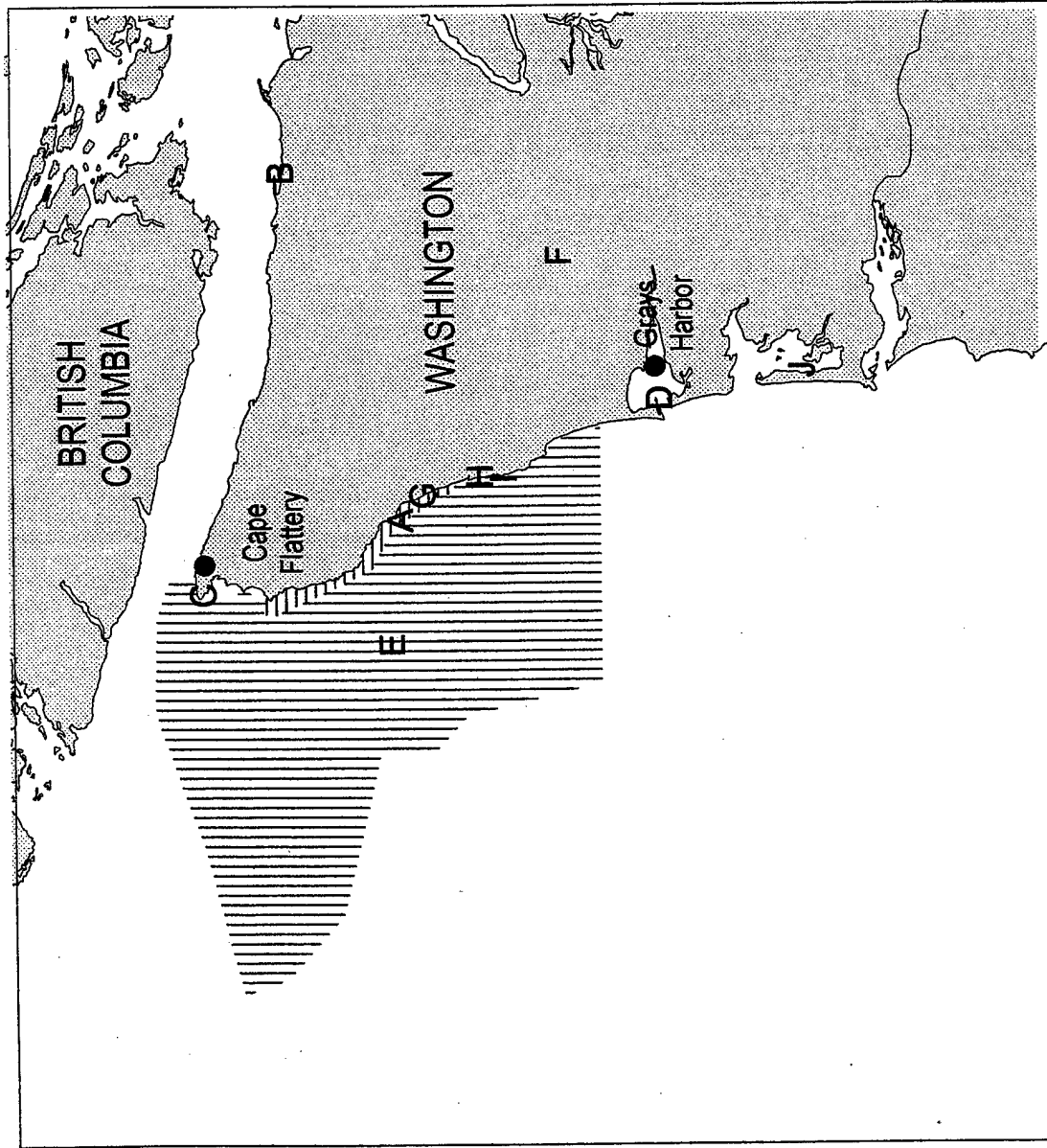
Many sanctuaries and reserves have been set aside specifically for protection of marine animals by providing critical habitat for feeding, nesting, mating and/or migrating. Many are multiple use areas in which some marine animals are protected and other marine animals are not. Some provide seasonal habitat only. Nearly all of the sanctuaries and reserves are administered by federal, state or local governments. Individuals desiring supplementary information about any of these areas should use the reference list as a starting point for additional inquiry.

The data fields included in the sanctuary and reserves tables are as follows:

|                       |   |
|-----------------------|---|
| Region                | Identifier cross-referenced to species table in main report   |
| Name                  | Name of sanctuary or reserve  |
| Letter desig          | Letter identifier cross-referenced to specific sanctuary map  |
| Size (acres)          | Approximate size (where known)  |
| Habitat types         | Dominant habitat type(s) represented in sanctuary   |
| Listed marine animals | Marine mammal, seabird and sea turtle species that are Federally listed as endangered or threatened |
| Special comments      | Additional information pertaining to sanctuary (where necessary)                                    |
| Info sources          | Number designator cross-referenced to list of references  |
| Admin                 | Agency responsible for administration of sanctuary  |
| Street address        | Street address for agency   |
| City                  | City for agency   |
| ST                    | State for agency  |
| Zip                   | Zip code  |
| Phone #               | Area code plus phone number for agency  |

NORTHEAST PACIFIC

# Washington Sanctuaries



## Washington Sanctuaries

- A Copalis NWR
  - B Dungeness Spit Wildlife Refuge
  - C Flattery Rocks NWR
  - D Grays Harbor NWR
  - E Olympic Coast NMS
  - F Olympic National Forest
  - G Olympic National Park
  - H Quillayute Needles
  - I Washington Islands Wilderness Area
  - J Willapa NWR
- Olympic National Park  
 Olympic Coast NMS

Table 1. Washington sanctuaries and reserves.

| Region    | Name                                    | Letter Designation | Size (acres) | Habitat Types                         | Listed Marine Animals  | Special Comments | Info Sources | Admin   | Street Address                       | City         | State | Zip Code   | Phone #      |
|-----------|---|--------------------|--------------|---------------------------------------|--|------------------|--------------|---|--------------------------------------|--------------|-------|------------|--------------|
| NE Pac WA | Copalis National Wildlife Refuge        | A                  |              | rocky islands, rocky intertidal       | Steller sea lion, CA sea otter, Brandt's cormorant   |                  | 6            | US Fish and Wildlife Service<br>State of Washington | c/o Nisqually NWR, 100 Brown Farm Rd | Olympia      | WA    | 98516      | 360 753 9467 |
| NE Pac WA | Dungeness Spit Wildlife Refuge          | B                  | 631          | sandy shore, salt marsh, forest       | Steller sea lion, blue whale, fin whale, humpback whale, sei whale, sperm whale, brown pelican, marbled murrelet   |                  | 12           |   | 1638 Barr Road South                 | Port Angeles | WA    | 98382      | 206 457 8451 |
| NE Pac WA | Flattery Rocks National Wildlife Refuge | C                  |              | rocky islands, rocky intertidal       | Steller sea lion, CA sea otter, Brandt's cormorant   |                  | 6            | US Fish and Wildlife Service                        | c/o Nisqually NWR, 100 Brown Farm Rd | Olympia      | WA    | 98516      | 360 753 9467 |
| NE Pac WA | Greys Harbor National Wildlife Refuge   | D                  |              | salt marsh                            | brown pelican  |                  | 6            | US Fish and Wildlife Service                        | c/o Nisqually NWR, 100 Brown Farm Rd | Olympia      | WA    | 98516      | 360 753 9467 |
| NE Pac WA | Olympic Coast National Marine Sanctuary | E                  |              | rocky intertidal, kelp forest         | marbled murrelet   |                  | 5            | NOAA Sanctuaries and Reserves Division              | 138 West First St                    | Port Angeles | WA    | 98362      | 360 457 6622 |
| NE Pac WA | Olympic National Forest                 | F                  | 632000       | forest                                | marbled murrelet   |                  | 10,11        | US Forest Service                                   | 1835 Black Lake Blvd SW              | Olympia      | WA    | 98512-5623 | 360 956 2400 |
| NE Pac WA | Olympic National Park                   | G                  |              | forest                                | northern right whale, blue whale, fin whale, sei whale, humpback whale, sperm whale, gray whale, Steller sea lion, CA sea otter, harbor porpoise, brown pelican, Brandt's cormorant, Aleutian Canada Goose, marbled murrelet |                  | 9, 10        | National Park Service                               | 600 East Park Ave                    | Port Angeles | WA    | 98362-6796 | 360 452 4501 |
| NE Pac WA | Quillayute Needles                      | H                  |              | rocky islands, rocky intertidal       | Steller sea lion, CA sea otter, Brandt's cormorant   |                  | 6            | US Fish and Wildlife Service                        | c/o Nisqually NWR, 100 Brown Farm Rd | Olympia      | WA    | 98516      | 360 753 9467 |
| NE Pac WA | Washington Islands Wilderness Area      | I                  | 450          | rocky islands, rocky intertidal       | Steller sea lion, CA sea otter, Brandt's cormorant   |                  | 6            | US Fish and Wildlife Service                        | c/o Nisqually NWR, 100 Brown Farm Rd | Olympia      | WA    | 98516      | 360 753 9467 |
| NE Pac WA | Willapa National Wildlife Refuge        | J                  | 5600         | forest, tidal flats, freshwater marsh | brown pelican  |                  | 6            | US Fish and Wildlife Service                        | Box 910                              | Iwaco        | WA    | 98624      | 360 484 3482 |

# Oregon Sanctuaries

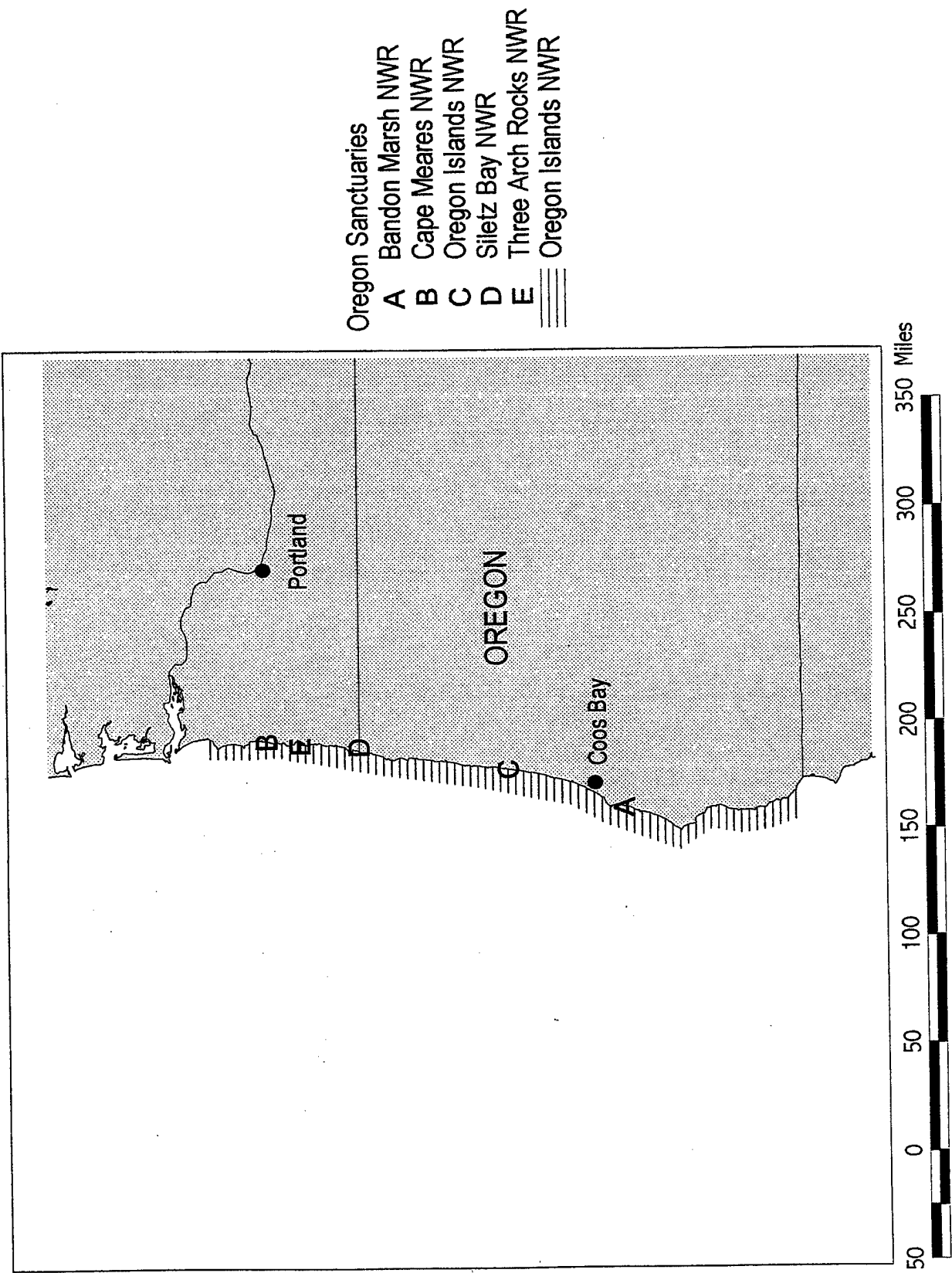


Table 2. Oregon sanctuaries and reserves.

| Region     | Name   | Letter<br>Desig | Size<br>(acres) | Habitat Types                      | Listed Marine<br>Animals           | Special Comments | Info<br>Sources | Admin                           | Street Address                                     | City      | ST | Zip   | Phone #      |
|------------|--|-----------------|-----------------|------------------------------------|------------------------------------|------------------|-----------------|---------------------------------|--|-----------|----|-------|--------------|
| NE Pac: OR | Bandon Marsh National<br>Wildlife Refuge     | A               | 289             | salt marsh                         | brown pelican                      |                  | 6               | US Fish and Wildlife<br>Service | Western Oregon Complex,<br>26208 Finley Refuge Rd. | Corvallis | OR | 97333 | 541 757 7236 |
| NE Pac: OR | Cape Meares National<br>Wildlife Refuge      | B               |                 | forest                             | marbled murrelet                   |                  | 6               | US Fish and Wildlife<br>Service | Western Oregon Complex,<br>26208 Finley Refuge Rd. | Corvallis | OR | 97333 | 541 757 7236 |
| NE Pac: OR | Oregon Islands National<br>Wildlife Refuge   | C               | 575             | rocky islands, rocky<br>intertidal | Stellar sea lion,<br>brown pelican |                  | 6               | US Fish and Wildlife<br>Service | Western Oregon Complex,<br>26208 Finley Refuge Rd. | Corvallis | OR | 97333 | 541 757 7236 |
| NE Pac: OR | Siletz Bay National<br>Wildlife Refuge       | D               | 46              | salt marsh                         | brown pelican                      |                  | 6               | US Fish and Wildlife<br>Service | Western Oregon Complex,<br>26208 Finley Refuge Rd. | Corvallis | OR | 97333 | 541 757 7236 |
| NE Pac: OR | Three Arch Rocks<br>National Wildlife Refuge | E               | 17              | rocky island                       | Stellar sea lion,<br>brown pelican |                  | 6               | US Fish and Wildlife<br>Service | Western Oregon Complex,<br>26208 Finley Refuge Rd. | Corvallis | OR | 97333 | 541 757 7236 |

**SOUTHEAST PACIFIC**

# Mid-California Sanctuaries

- Mid-California Sanctuaries
- A** Ano Nuevo State Reserve
  - B** Big Creek MRPA Ecological Reserve
  - C** California Sea Otter Game Refuge
  - D** Carmel Bay Ecological Reserve
  - E** Central CA Coast Biosphere Reserve
  - F** Cordell Bank National Marine Sanctuary
  - G** Del Mar Landing Ecological Reserve
  - H** Don Edwards San Francisco Bay NWR
  - I** Farallon Island NWR
  - J** Farallon Islands Ecological Reserve
  - K** Farallon Islands Game Refuge
  - L** Golden Gate National Recreation Area
  - M** Gulf of the Farallones NMS
  - N** Manchester State Park
  - O** Monterey Bay NMS
  - P** Point Lobos Ecological Reserve
  - Q** Point Reyes Headlands Nat'l Res. Natural Area
  - R** Point Reyes National Seashore
  - S** San Pablo Bay NWR
  - S** Cordell Bank National Marine Sanctuary
  - S** California Sea Otter Game Refuge
  - S** Farallon Islands Game Refuge
  - S** Gulf of the Farallones National Marine Sanctuary
  - S** Monterey Bay National Marine Sanctuary

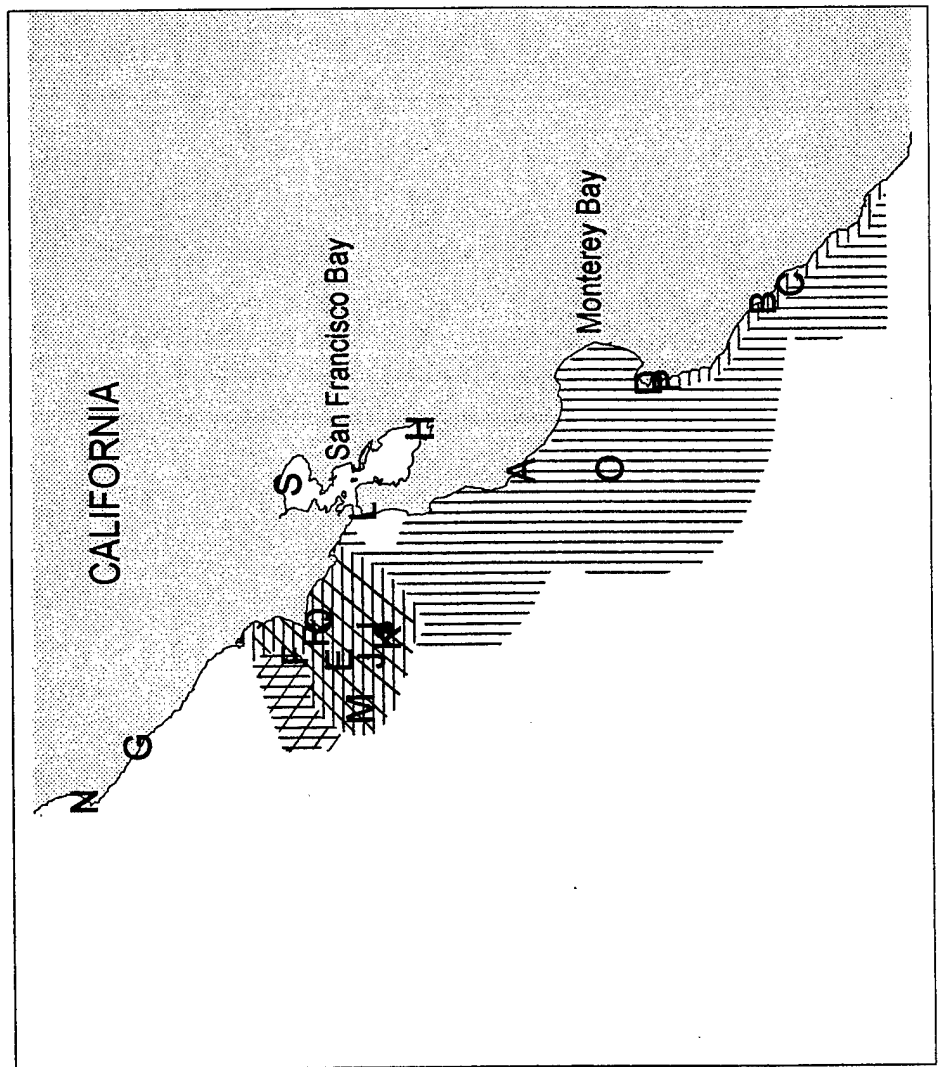
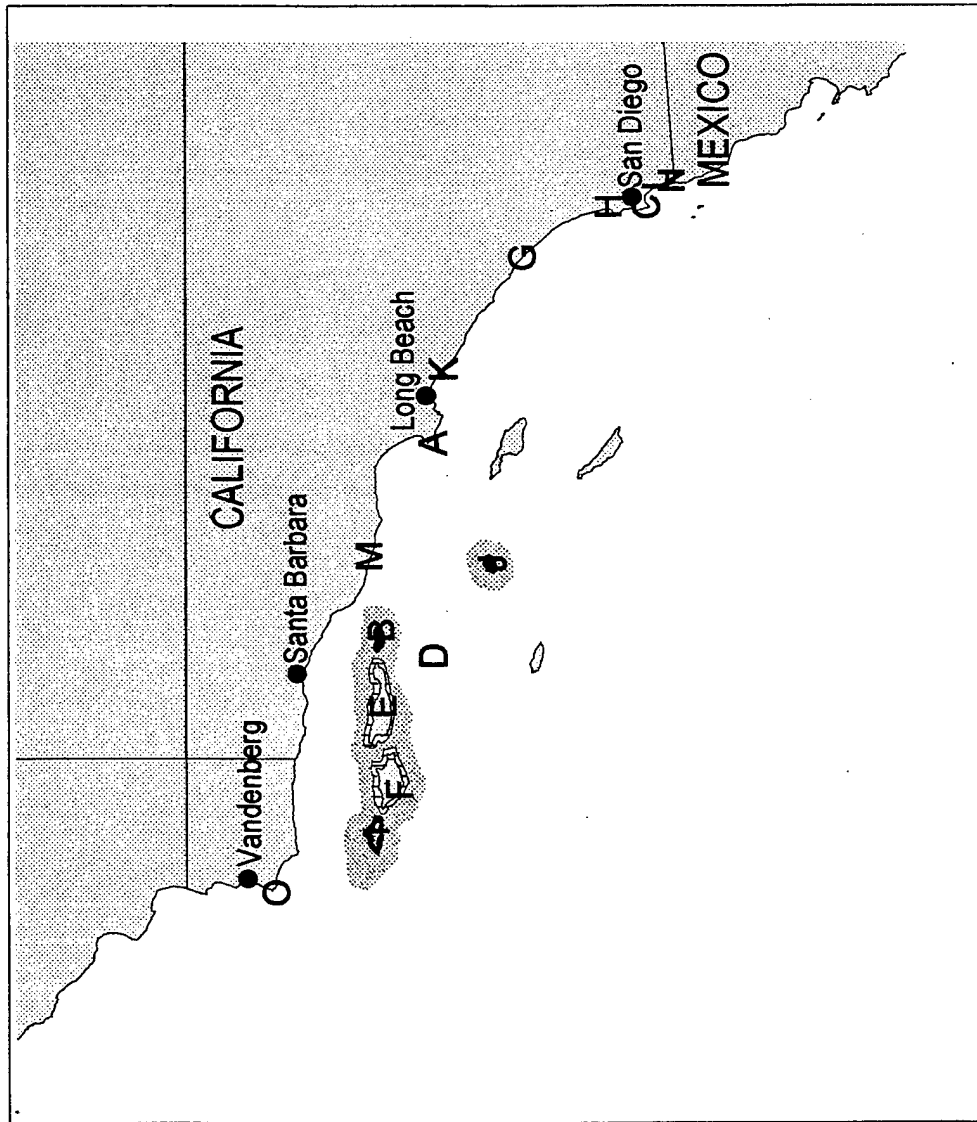


Table 3. Mid-California sanctuaries and reserves.

| Region         | Name   | Letter Desig | Size (acres) | Habitat Types  | Listed Marine Animals   | Special Comments                                      | Info Sources | Admin                                  | Street Address                        | City              | ST | Zip Code | Phone #      |
|----------------|--|--------------|--------------|--|---|---|--------------|--|---------------------------------------|-------------------|----|----------|--------------|
| SE Pac: mid-CA | Ano Nuevo State Reserve                                      | A            | 4000         | sandy shore, rocky islands   | Steller sea lion  | harassment and disturbance of wild animals prohibited | 6            | CA Dept Parks and Recreation           | New Years Creek Rd                    | Pescadero         | CA | 94080    | 415 979 2025 |
| SE Pac: mid-CA | Big Creek Marine Resources Protection Act Ecological Reserve | B            | 1674         | rocky intertidal, kelp forest  | brown pelican   | no aircraft except by authorized research permit      | 1            | CA Dept of Fish and Game               | 1416 Ninth St.                        | Sacramento        | CA | 95814    | 916 653 6281 |
| SE Pac: mid-CA | California Sea Otter Game Refuge                             | C            | 192300       | Sandy shore, kelp forest   | sea otter   | no aircraft <1000' except by permit                   | 1.2          | CA Dept of Fish and Game               | 1416 Ninth St.                        | Sacramento        | CA | 95814    | 916 653 6281 |
| SE Pac: mid-CA | Carmel Bay Ecological Reserve                                | D            | 1652         | rocky intertidal, kelp forest  | sea otter   | no aircraft except by authorized research permit      | 7            | CA Dept of Fish and Game               | 1416 Ninth St.                        | Sacramento        | CA | 95814    | 916 653 6281 |
| SE Pac: mid-CA | Central CA Coast Biosphere Reserve                           | E            | 1000012      | tidal flats, reefs, littoral ocean, tidal flats/salt marsh, deep benthos | blue, fin, humpback and sperm whales, and Steller sea lions   |   | 1            |  |                                       |                   |    |          |              |
| SE Pac: mid-CA | Cordell Bank National Marine Sanctuary                       | F            | 332400       | seamount, rocky intertidal   | blue, fin, humpback and sperm whales  |   | 1.2.5        | NOAA Sanctuaries and Reserves Division | Fort Mason Building #201              | San Francisco     | CA | 94123    | 415 556 3509 |
| SE Pac: mid-CA | Del Mar Landing Ecological Reserve                           | G            | 60           | rocky intertidal   |   | no aircraft except by authorized research permit      | 6            | CA Dept of Fish and Game               | 1416 Ninth St.                        | Sacramento        | CA | 95814    | 916 653 6281 |
| SE Pac: mid-CA | Don Edwards San Francisco Bay National Wildlife Refuge       | H            |              | salt marsh   | brown pelican, CA least tern  |   | 6            | US Fish and Wildlife Service           | San Francisco Bay Complex, PO Box 524 | Newark            | CA | 94560    | 510 792 0222 |
| SE Pac: mid-CA | Farallon Island National Wildlife Refuge                     | I            | 211          | rocky islands  | Steller sea lion, brown pelican   | no aircraft <1000' except by permit                   | 6            | US Fish and Wildlife Department        | PO Box 524                            | Newark            | CA | 94560    | 415 792 0222 |
| SE Pac: mid-CA | Farallon Islands Ecological Reserve                          | J            |              | rocky islands  | Steller sea lion  |   | 6            | CA Dept of Fish and Game               | 1416 Ninth St.                        | Sacramento        | CA | 95814    | 916 653 6281 |
| SE Pac: mid-CA | Farallon Islands Game Refuge                                 | K            | 11262        | rocky islands  | Steller sea lion  | no helicopter <1000' except by permit                 | 1            | CA Dept of Fish and Game               | 1416 Ninth St.                        | Sacramento        | CA | 95814    | 916 653 6281 |
| SE Pac: mid-CA | Golden Gate National Recreation Area                         | L            | 5885         | sandy shore, rocky intertidal, tidal flats/salt marsh                    |   |   | 9            | National Park Service                  | Fort Mason Building #201              | San Francisco     | CA | 94123    |              |
| SE Pac: mid-CA | Gulf of the Farallones National Marine Sanctuary             | M            | 792804       | tidal flats, reefs, littoral ocean, tidal flats/salt marsh, deep benthos | blue, fin, humpback and sperm whales, and Steller sea lions   | no aircraft <1000' except by permit                   | 1.2.5        | NOAA Sanctuaries and Reserves Division | Fort Mason Building #201              | San Francisco     | CA | 94123    | 415 556 3509 |
| SE Pac: mid-CA | Manchester State Park/Arena Rock Marine Natural Preserve     | N            | 3657         | sandy shore, kelp forest   | unk   |   | 1            | CA Dept of Parks and Recreation        | PO Box 440                            | Mendocino         | CA | 95460    | 707 862 2463 |
| SE Pac: mid-CA | Monterey Bay National Marine Sanctuary                       | O            | 336679       | submarine canyon, rocky intertidal, kelp forest, sandy shore             | blue, fin, humpback, right and sperm whales, Steller sea lions, Guadalupe fur seals, sea otters, brown pelicans and marbled murrelets | no aircraft <1000' except by permit                   | 1.2.3        | NOAA Sanctuaries and Reserves Division | 288 Foam St, #D                       | Monterey          | CA | 93940    | 408 647 4201 |
| SE Pac: mid-CA | Point Lobos Ecological Reserve                               | P            | 775          | kelp forest, rocky intertidal  | sea otter   | no aircraft except by authorized research permit      | 6            | CA Dept of Fish and Game               | 1416 Ninth St.                        | Sacramento        | CA | 95814    | 916 653 6281 |
| SE Pac: mid-CA | Point Reyes Headlands National Research Natural Area         | Q            | 640          | kelp forest, rocky intertidal  |   |   | 6            |  |                                       |                   | CA |          |              |
| SE Pac: mid-CA | Point Reyes National Seashore                                | R            | 9009         | tidal flats, sandy shore   | blue, fin, humpback, seal and sperm whales, Steller sea lions, sea otters, brown pelicans, Townsend's shearwaters, and least terns    |   | 1            | National Park Service                  |                                       | Pt. Reyes Station | CA | 94956    | 415 663 1092 |
| SE Pac: mid-CA | San Pablo Bay National Wildlife Refuge                       | S            |              | salt marsh/tidal flat  | brown pelican, CA least tern  |   | 6            | US Fish and Wildlife Service           | PO Box 2012                           | Valejo            | CA | 94592    | 707 552 6213 |

# Southern California Sanctuaries



## Southern California Sanctuaries

- A Abalone Cove Ecological Reserve
- B Anacapa Island Ecological Reserve
- C Cabrillo National Monument
- D Channel Islands Biosphere Reserve
- E Channel Islands NMS
- F Channel Islands National Park
- G Heister Park Ecological Reserve
- H San Diego-La Jolla Underwater Reserve
- I San Miguel Island Ecological Reserve
- J Santa Barbara Island Ecological Reserve
- K Seal Beach National Wildlife Refuge
- L Sweetwater Marsh National Wildlife Refuge
- M Sycamore Canyon MRPA ER
- N Tijuana Slough NWR
- O Vandenberg MRPA ER

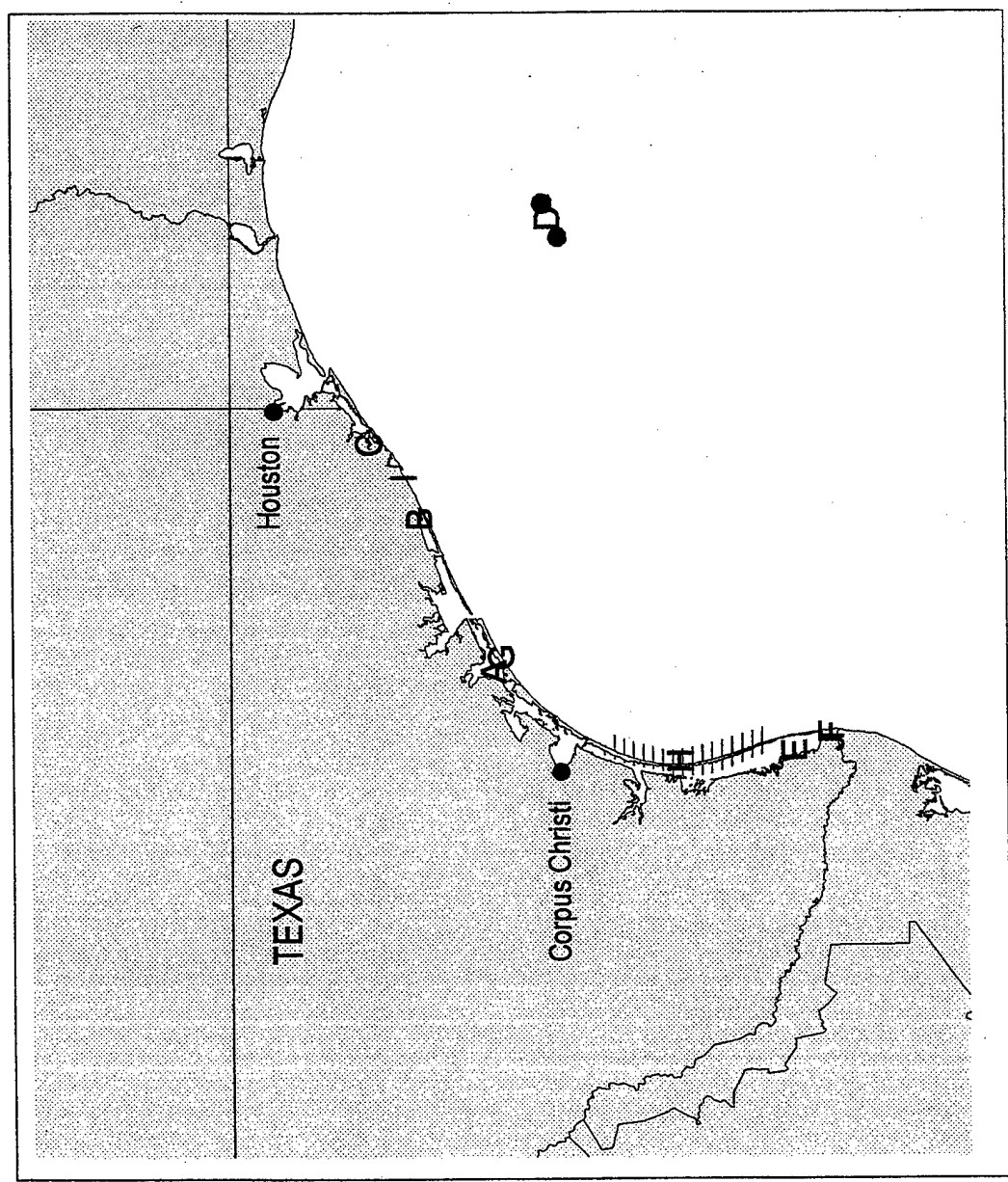


Table 4. Southern California sanctuaries and reserves.

| Region           | Name   | Letter Desig | Size (acres) | Habitat Types   | Listed Marine Animals   | Special Comments             | Info Sources | Admin  | Street Address                          | City           | ST | Zip Code   | Phone #      |
|------------------|--|--------------|--------------|---|---|------------------------------|--------------|--|---|----------------|----|------------|--------------|
| SE Pac:<br>So CA | Abalone Cove Ecological Reserve                                    | A            | 124          | rocky intertidal, kelp forest                           | brown pelican   | no aircraft except by permit | 8            | CA Dept of Fish and Game                       | 1416 Ninth St.                          | Sacramento     | CA | 95814      | 916 653 6281 |
| SE Pac:<br>So CA | Anacapa Island Ecological Reserve                                  | B            | 9113         | rocky intertidal, kelp forest, rocky islands            | brown pelican   | no aircraft except by permit | 1,8          | CA Dept of Fish and Game                       | 1416 Ninth St.                          | Sacramento     | CA | 95814      | 916 653 6281 |
| SE Pac:<br>So CA | Cabrillo National Monument   | C            | 144          | rocky intertidal, kelp forest                           |   |                              | 9            | National Park Service                          | 1800 Cabrillo Memorial Drive            | San Diego      | CA | 92106-3601 | 619 557 5450 |
| SE Pac:<br>So CA | Channel Islands Biosphere Reserve                                  | D            | 1184740      | rocky islands, rocky intertidal, kelp forest            | blue, sei, fin, humpback, right and sperm whale, Stellar sea lion, Guadalupe fur seal and brown pelican |                              | 1            |  |   |                | CA |            |              |
| SE Pac:<br>So CA | Channel Islands National Marine Sanctuary                          | E            | 1048142      | kelp forest, littoral ocean, rocky islands, sandy shore | blue, sei, fin, humpback, right and sperm whale, Stellar sea lion, Guadalupe fur seal and brown pelican | no aircraft within 1000'     | 1, 2, 4      | NOAA Sanctuaries and Reserves Division         | 113 Harbor Way                          | Santa Barbara  | CA | 93109      | 805 966 7107 |
| SE Pac:<br>So CA | Channel Islands National Park                                      | F            | 119186       | rocky islands, rocky intertidal, kelp forest            | blue, sei, fin, humpback, right and sperm whale, Stellar sea lion, Guadalupe fur seal and brown pelican |                              | 1, 9         | National Park Service, State of CA             | 1901 Spinnaker Dr.                      | Ventura        | CA | 93001      | 805 658 5730 |
| SE Pac:<br>So CA | Heister Park Ecological Reserve                                    | G            | 30           | sandy shore, kelp forest                                | brown pelican   | no aircraft except by permit | 8            | CA Dept of Fish and Game                       | 1416 Ninth St.                          | Sacramento     | CA | 95814      | 916 653 6281 |
| SE Pac:<br>So CA | San Diego-La Jolla Underwater Reserve                              | H            | 5977         | kelp forests  |   | no aircraft except by permit | 1            | City of La Jolla, Dept of Parks and Recreation | 2581 Quivira Ct.                        | San Diego      | CA | 92109      | 619 221 8866 |
| SE Pac:<br>So CA | San Miguel Island Ecological Reserve                               | I            | 17993        | kelp forest, rocky intertidal                           | Stellar sea lion, Guadalupe fur seal  | no aircraft except by permit | 1, 8         | CA Dept of Fish and Game                       | 1416 Ninth St.                          | Sacramento     | CA | 95814      | 916 653 6281 |
| SE Pac:<br>So CA | Santa Barbara Island Ecological Reserve                            | J            | 7921         | kelp forest, rocky intertidal                           | brown pelican   | no aircraft except by permit | 1            | CA Dept of Fish and Game                       | 1416 Ninth St.                          | Sacramento     | CA | 95814      | 916 653 6281 |
| SE Pac:<br>So CA | Seal Beach National Wildlife Refuge                                | K            |              | salt marsh  | brown pelican, CA least tern  |                              | 6            | US Fish and Wildlife Service                   | San Diego Complex, 2736 Loker Ave. West | Carlsbad       | CA | 92008      | 760 930 0168 |
| SE Pac:<br>So CA | Sweetwater Marsh National Wildlife Refuge                          | L            |              | salt marsh/tidal flat                                   | CA least tern   |                              | 6            | US Fish and Wildlife Service                   | San Diego Complex, 2736 Loker Ave. West | Carlsbad       | CA | 92008      | 760 930 0168 |
| SE Pac:<br>So CA | Sycamore Canyon Marine Resources Protection Act Ecological Reserve | M            | 1674         | kelp forest, rocky intertidal                           | brown pelican, CA least tern  |                              | 1            | CA Dept of Fish and Game                       | 1416 Ninth St.                          | Sacramento     | CA | 95814      | 916 653 6281 |
| SE Pac:<br>So CA | Tijuana Slough National Wildlife Refuge                            | N            |              | salt marsh/tidal flat                                   | brown pelican, CA least tern  |                              | 6            | US Fish and Wildlife Service                   | 301 Caspian Way                         | Imperial Beach | CA | 91932      | 619 575 2704 |
| SE Pac:<br>So CA | Vandenberg Marine Resources Protection Act Ecological Reserve      | O            | 1674         | kelp forest, rocky intertidal                           | brown pelican, CA least tern  |                              | 1            | CA Dept of Fish and Game                       | 1416 Ninth St.                          | Sacramento     | CA | 95814      | 916 653 6281 |

## **GULF OF MEXICO**

# Texas Sanctuaries



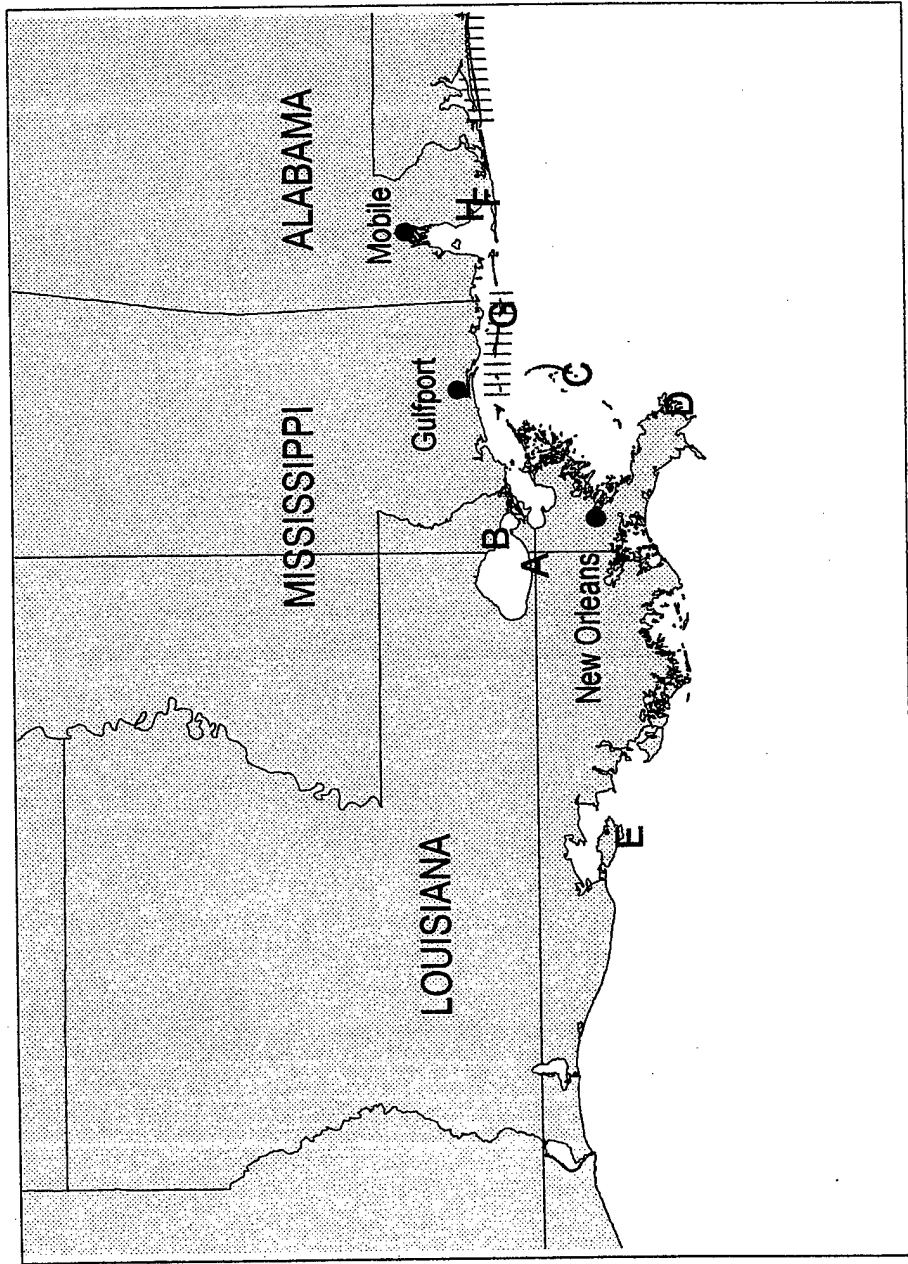
**Texas Sanctuaries**

- A** Aransas NWR
- B** Big Boggy NWR
- C** Brazoria NWR
- D** Flower Garden NMS
- E** Laguna Atascosa NWR
- F** Lower Rio Grande Valley NWR
- G** Matagorda Island State Park
- H** Padre Island National Seashore
- I** San Bernard NWR
- J** Santa Ana NWR
- ▬▬▬ Padre Island National Seashore
- ▬▬▬ Flower Garden NMS

Table 5. Texas sanctuaries and reserves.

| Region          | Name   | Letter Desig | Size (acres) | Habitat Types                             | Listed Marine Animals   | Special Comments | Info Sources | Admin                                  | Street Address   | City           | ST | Zip Code | Phone #       |
|-----------------|--|--------------|--------------|---|---|------------------|--------------|--|--|----------------|----|----------|---------------|
| Gulf of Mex. TX | Aransas National Wildlife Refuge                         | A            |              | salt marsh                                | green, hawksbill, Kemp ridley, loggerhead and leatherback sea turtles, brown pelicans |                  | 6            | U.S. Fish and Wildlife Service         | PO Box 100   | Austwell       | TX | 77950    | 512 286 3559  |
| Gulf of Mex. TX | Big Bogy National Wildlife Refuge                        | B            | 4536         | salt marsh                                | brown pelican   |                  | 6            | U.S. Fish and Wildlife Service         | c/o Brazoria NWR, 1212 N. Velasco, Suite 200                     | Angleton       | TX | 77515    | 409 964 3639  |
| Gulf of Mex. TX | Brazoria National Wildlife Refuge                        | C            | 40854        | salt marsh, freshwater marsh              | brown pelican   |                  | 6            | U.S. Fish and Wildlife Service         | c/o Brazoria NWR, 1212 N. Velasco, Suite 200                     | Angleton       | TX | 77515    | 409 849 77710 |
| Gulf of Mex. TX | Laguna Atascosa National Wildlife Refuge                 | D            | 45187        | salt marsh, freshwater marsh              | loggerhead sea turtles, brown pelican   |                  | 6            | U.S. Fish and Wildlife Service         | PO Box 450   | Rio Hondo      | TX | 78583    | 210 746 3607  |
| Gulf of Mex. TX | Lower Rio Grande Valley National Wildlife Refuge         | E            |              | sandy shore, salt marsh, freshwater marsh | green, hawksbill, Kemp ridley, loggerhead and leatherback sea turtles, brown pelicans |                  | 6            | U.S. Fish and Wildlife Service         | c/o Lower Rio Grande Valley/Santa Ana Complex, Route 2, Box 202A | Alamo          | TX | 78516    | 210 787 3079  |
| Gulf of Mex. TX | Flower Garden National Marine Sanctuary                  | F            |              | reefs                                     | loggerhead sea turtles  |                  | 5            | NOAA Sanctuaries and Reserves Division | 1216 W. 26th St., Suite 104                                      | Bryan          | TX | 77803    | 409 779 2705  |
| Gulf of Mex. TX | Matagorda Island State Park and Wildlife Management Area | G            | 43893        | sandy shore                               | Atlantic ridley sea turtle, brown pelican   |                  | 21           | Texas Parks and Wildlife Department    | PO Box 117   | Port O'Connor  | TX | 77982    | 512 983 2215  |
| Gulf of Mex. TX | Padre Island National Seashore                           | H            | 133000       | sandy shore                               | Atlantic ridley and loggerhead sea turtles, brown pelican                             |                  | 9            | National Park Service                  | 19405 South Padre Island Drive                                   | Corpus Christi | TX | 78418    | 512 949 8173  |
| Gulf of Mex. TX | San Bernard National Wildlife Refuge                     | I            | 24455        | salt marsh, freshwater marsh              | brown pelican   |                  | 6            | U.S. Fish and Wildlife Service         | c/o Brazoria NWR, 1212 N. Velasco, Suite 200                     | Angleton       | TX | 77515    | 409 849 77710 |
| Gulf of Mex. TX | Santa Ana National Wildlife Refuge                       | J            |              | sandy shore, salt marsh, freshwater marsh | brown pelican   |                  | 6,22         | U.S. Fish and Wildlife Service         | c/o Lower Rio Grande Valley/Santa Ana Complex, Route 2, Box 202A | Alamo          | TX | 78516    | 210 787 3079  |

# Louisiana, Mississippi and Alabama Sanctuaries



## Louisiana Sanctuaries

**A** Bayou Sauvage NWR

**B** Big Branch Marsh NWR

**C** Breton NWR

**D** Delta NWR

**E** Shell Keys NWR

## Alabama and Mississippi Sanctuaries

**F** Bon Secour NWR

**G** Gulf Islands NS

**H** Weeks Bay NERR

||||| Gulf Islands National Seashore

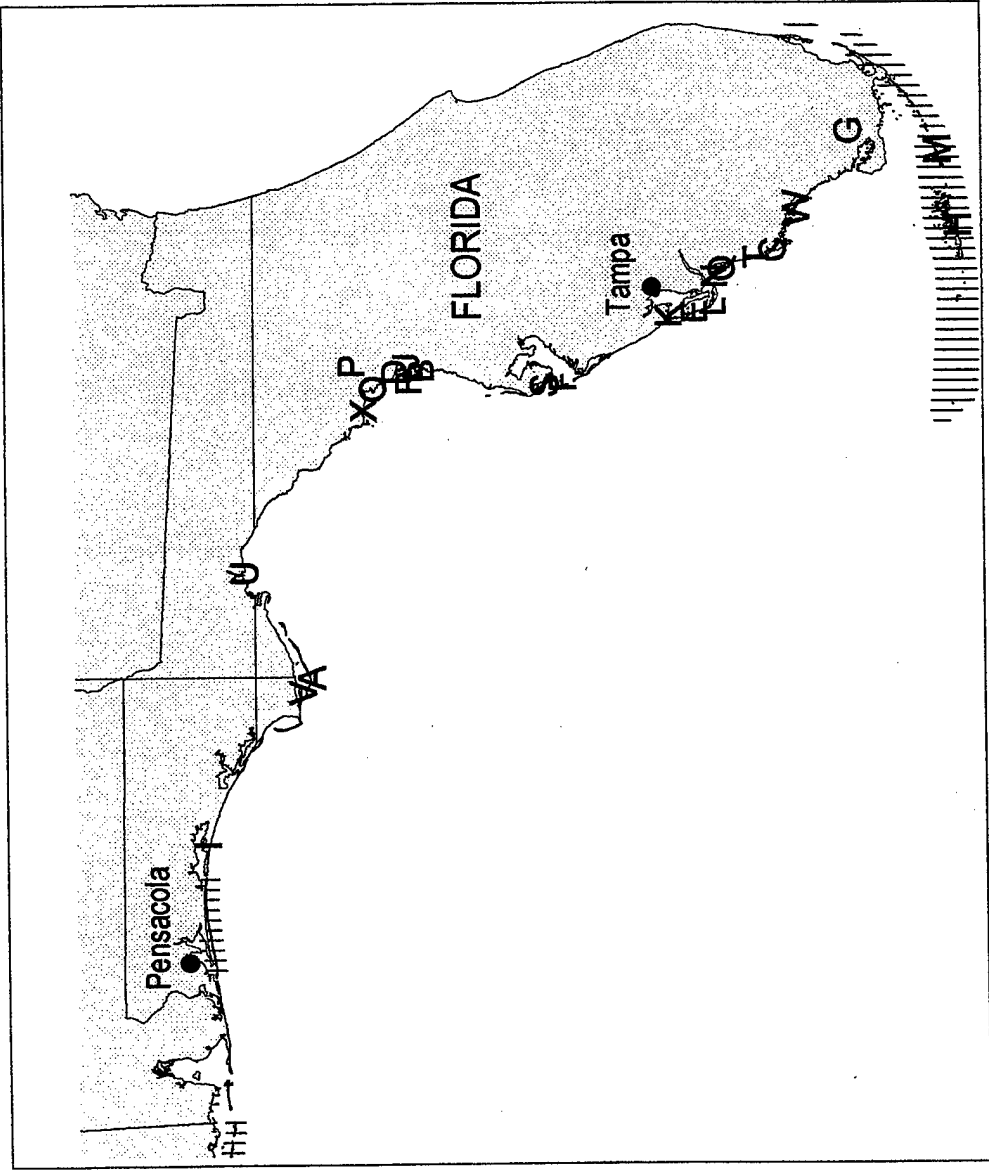
**Table 6. Louisiana, Mississippi and Alabama sanctuaries and reserves.**

| Region          | Name   | Letter Desig | Size (acres) | Habitat Types                             | Listed Marine Animals  | Special Comments | Info Sources | Admin  | Street Address  | City          | ST | Zip Code | Phone #      |
|-----------------|--|--------------|--------------|---|--|------------------|--------------|--|---|---------------|----|----------|--------------|
| Gulf of Mex: LA | Bayou Sauvage National Wildlife Refuge         | A            |              | salt marsh, freshwater marsh              | brown pelican  |                  | 6            | U.S. Fish and Wildlife Service   | c/o Southeast Louisiana Refuges, 1010 Gause Blvd., Bldg 936 | Slidell       | LA | 70458    | 504 646 7555 |
| Gulf of Mex: LA | Big Branch Marsh National Wildlife Refuge      | B            | 3660         | freshwater marsh                          | brown pelican  |                  | 6            | U.S. Fish and Wildlife Service   | c/o Southeast Louisiana Refuges, 1010 Gause Blvd., Bldg 936 | Slidell       | LA | 70458    | 504 646 7555 |
| Gulf of Mex: AL | Bon Secour National Wildlife Refuge            | F            |              | salt marsh, freshwater marsh, sandy shore | loggerhead sea turtles   |                  | 6            | U.S. Fish and Wildlife Service   | 12295 State Hwy 180   | Gulf Shores   | AL | 36542    | 334 540 7720 |
| Gulf of Mex: LA | Breton National Wildlife Refuge                | C            | 6923         | sandy shore, salt marsh                   | Green, Kemp ridley, leatherback and loggerhead sea turtles, brown pelican and least tern |                  | 6            | U.S. Fish and Wildlife Service   | c/o Southeast Louisiana Refuges, 1010 Gause Blvd., Bldg 936 | Slidell       | LA | 70458    | 504 646 7555 |
| Gulf of Mex: LA | Delta National Wildlife Refuge                 | D            | 48800        | freshwater marsh, salt marsh              | brown pelican  |                  | 6            | U.S. Fish and Wildlife Service   | c/o Southeast Louisiana Refuges, 1010 Gause Blvd., Bldg 936 | Slidell       | LA | 70458    | 504 534 2235 |
| Gulf of Mex: MS | Gulf Islands National Seashore                 | G            | 135625       | salt marsh, sandy shore                   | brown pelican  |                  | 9, 12        | National Park Service  | 3500 Park Road  | Ocean Springs | MS | 39564    | 601 875 0821 |
| Gulf of Mex: LA | Shell Keys National Wildlife Refuge            | E            |              | sandy shore                               | brown pelican  |                  | 6            | U.S. Fish and Wildlife Service   | c/o Southeast Louisiana Refuges, 1010 Gause Blvd., Bldg 936 | Slidell       | LA | 70458    | 504 646 7555 |
| Gulf of Mex: AL | Weeks Bay National Estuarine Research Reserves | H            | >3000        | salt marsh, sandy shore                   | brown pelican  |                  | 20           | NOAA Sanctuaries and Reserves Division and AL Dept. Economic and Community Affairs | 11300 US Highway 98   | Fairhope      | AL | 36532    | 334 928 9792 |

# Florida Gulf of Mexico Sanctuaries

## Florida Gulf of Mexico Sanctuaries

- A Apalachicola NERR
- B Chassahowitzka NWR
- C Collier-Seminole State Park
- D Crystal River NWR
- E Don Pedro Island SRA
- F Egmont Key NWR
- G Everglades National Park
- H Florida Keys NMS
- I Grayton Beach SRA
- J Homosassa Springs State WP
- K Island Bay NWR
- L JN Ding Darling NWR
- M Key West NWR
- N Lovers Key SRA
- O Lower Suwannee NWR
- P Manatee Springs SP
- Q Matlacha Pass NWR
- R Passage Key NWR
- S Pinellas NWR
- T Rookery Bay NERR
- U St. Marks NWR
- V St. Vincent NWR
- W Ten Thousand Islands NWR
- X Waccasassa Bay State Preserves
- ||||| Gulf Islands National Seashore
- ||||| Florida Keys National Marine Sanctuary



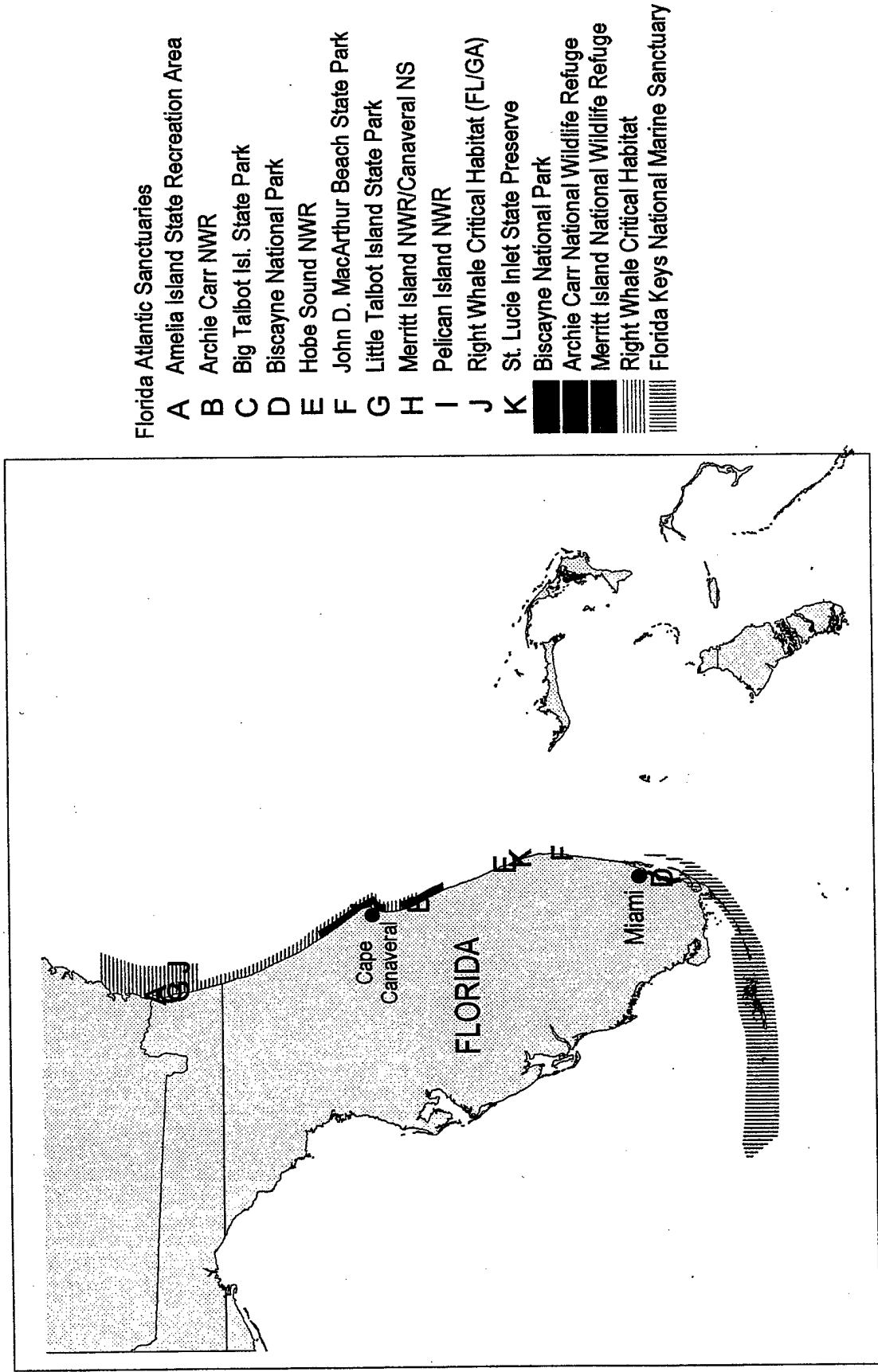
| Table 7. Florida (Gulf of Mexico) sanctuaries and reserves. |   |                    |              |   |  |                  |              |  |   |                  |    |            |              |
|---|---|--------------------|--------------|---|--|------------------|--------------|--|---|------------------|----|------------|--------------|
| Region  | Name  | Letter Designation | Size (acres) | Habitat Types                           | Listed Marine Animals  | Special Comments | Info Sources | Admin  | Street Address                                  | City             | ST | Zip Code   | Phone #      |
| Gulf of Mexico, FL  | Apalachicola National Estuarine Research Reserves | A                  | 193758       | salt marsh, sandy shore                 | manatees, green, Atlantic Ridley, leatherback and loggerhead sea turtles |                  | 19           | Florida Dept of Environmental Protection, and NOAA | 261 7th Street                                  | Apalachicola     | FL | 32320      | 904 653 8063 |
| Gulf of Mexico, FL  | Chassahowitzka National Wildlife Refuge           | B                  | 30,500       | salt marsh                              | manatees, green, Kemp Ridley and loggerhead sea turtles                  |                  | 6            | U.S. Fish and Wildlife Service                     | c/o Chassahowitzka NWR, 1502 SE Kings Bay Drive | Crystal River    | FL | 34429      | 352 563 2088 |
| Gulf of Mexico, FL  | Collier-Seminole State Park                       | C                  |              | salt marsh                              | manatees   |                  | 13           | Florida State Parks                                | 20200 E. Tamiami Trail                          | Naples           | FL | 34114      | 941 394 3397 |
| Gulf of Mexico, FL  | Crystal River National Wildlife Refuge            | D                  | 43           | freshwater marsh                        | manatees   |                  | 6            | U.S. Fish and Wildlife Service                     | 1502 SE Kings Bay Drive                         | Crystal River    | FL | 34429      | 352 563 2088 |
| Gulf of Mexico, FL  | Don Pedro Island State Recreation Area            | E                  |              | sandy shore                             | loggerhead sea turtles   |                  | 24           | Florida State Parks                                | c/o Cayo Costa State Park, P. O. Box 1150       | Boca Grande      | FL | 33921      | 941 864 0375 |
| Gulf of Mexico, FL  | Egmont Key National Wildlife Refuge               | F                  | 350          | sandy shore, saltmarsh                  | loggerhead sea turtles   |                  | 6            | U.S. Fish and Wildlife Service                     | c/o Chassahowitzka NWR, 1502 SE Kings Bay Drive | Crystal River    | FL | 34429      | 352 563 2088 |
| Gulf of Mexico, FL  | Everglades National Park                          | G                  | 1506539      | salt marsh, freshwater marsh, mangroves | manatees   |                  | 9,12         | National Park Service                              | 40001 State Road 9336                           | Homestead        | FL | 33034-6733 | 305 242 7700 |
| Gulf of Mexico, FL  | Florida Keys National Marine Sanctuary            | H                  |              | mangroves, coral reef                   |  |                  | 5,12         | NOAA Sanctuaries and Reserves Division             | P. O. Box 500368                                | Marathon         | FL | 33050      | 305 743 2437 |
| Gulf of Mexico, FL  | Grayton Beach State Recreation Area               | I                  | 400          | sandy shore                             | sea turtles  |                  | 24           | Florida State Parks                                | Box 6600  | Santa Rosa Beach | FL | 32459      | 904 231 4210 |
| Gulf of Mexico, FL  | Homosassa Springs State Wildlife Park             | J                  |              | freshwater marsh                        | manatees   |                  | 24           | Florida State Parks                                | 9225 West Fish Bowl Drive                       | Homosassa        | FL | 34448      | 352 628 5343 |
| Gulf of Mexico, FL  | Island Bay National Wildlife Refuge               | K                  |              | mangroves, salt marsh                   | manatees   |                  | 6            | U.S. Fish and Wildlife Service                     | c/o JN Ding Darling NWR, 1 Wildlife Drive       | Sambel           | FL | 33957      | 941 472 1100 |

Table 7. (Cont).

| Region             | Name   | Letter Desig | Size (acres) | Habitat Types                            | Listed Marine Animals  | Special Comments | Info Sources | Admin                                    | Street Address                                  | City            | ST | Zip Code   | Phone #      |
|--------------------|--|--------------|--------------|--|--|------------------|--------------|--|---|-----------------|----|------------|--------------|
| Gulf of Mexico: FL | JN Ding Darling National Wildlife Refuge                     | L            |              | mangrove, freshwater marsh               | manatees   |                  | 6            | U.S. Fish and Wildlife Service           | JN Ding Darling NWR, 1 Wildlife Drive           | Sanibel         | FL | 33957      | 941 472 1100 |
| Gulf of Mexico: FL | Key West National Wildlife Refuge                            | M            | 2019         | salt marsh, mangrove                     | green sea turtles, loggerhead sea turtles, roseate terns             |                  | 6            | U.S. Fish and Wildlife Service           | c/o National Key Deer Refuge, PO Box 430510     | Big Pine Key    | FL | 33043-0510 | 305 872 2239 |
| Gulf of Mexico: FL | Lovers Key State Recreation Area                             | N            | 434          | mangroves                                | manatees   |                  | 24           | Florida State Parks                      | 8700 Estero Blvd.                               | FL Meyers Beach | FL | 33931      | 941 463 4588 |
| Gulf of Mexico: FL | Lower Suwannee National Wildlife Refuge                      | O            |              | saltmarsh, freshwater marsh              | manatees, loggerhead and Kemp Ridley sea turtles                     |                  | 6            | U.S. Fish and Wildlife Service           | Route 1, Box 1193-C                             | Chieftand       | FL | 32626      | 904 493 0238 |
| Gulf of Mexico: FL | Manatee Springs State Park                                   | P            | 2075         | freshwater marsh                         | manatees   |                  | 24           | Florida State Parks                      | Route 2, Box 617                                | Chieftand       | FL | 32626      | 352 493 6072 |
| Gulf of Mexico: FL | Matlacha Pass National Wildlife Refuge                       | Q            | 148          | mangrove                                 | manatees   |                  | 6            | U.S. Fish and Wildlife Service           | c/o JN Ding Darling NWR, 1 Wildlife Drive       | Sanibel         | FL | 33957      | 941 472 1100 |
| Gulf of Mexico: FL | Passage Key National Wildlife Refuge                         | R            | 30           | sandy shore, saltmarsh                   | green and loggerhead sea turtles                                     |                  | 6            | U.S. Fish and Wildlife Service           | c/o Chassahowitzka NWR, 1502 SE Kings Bay Drive | Crystal River   | FL | 34426      | 352 563 2088 |
| Gulf of Mexico: FL | Pinellas National Wildlife Refuge                            | S            |              | saltmarsh, sandy shore                   | manatees, green and loggerhead sea turtles                           |                  | 6            | U.S. Fish and Wildlife Service           | c/o Chassahowitzka NWR, 1502 SE Kings Bay Drive | Crystal River   | FL | 34429      | 352 563 2088 |
| Gulf of Mexico: FL | Rookery Bay National Estuarine Research Reserve              | T            | 12500        | saltmarsh                                | manatees   |                  | 2,5          | Florida Dept of Environmental Protection | 10 Shell Island Road                            | Naples          | FL | 33962      | 941 775 8845 |
| Gulf of Mexico: FL | St. Marks National Wildlife Refuge                           | U            |              | salt marsh/tidal flats, freshwater marsh | manatees, green, Kemp Ridley, leatherback and loggerhead sea turtles |                  | 6            | U.S. Fish and Wildlife Service           | PO Box 68                                       | St. Marks       | FL | 32355      | 904 925 6121 |
| Gulf of Mexico: FL | St. Vincent National Wildlife Refuge                         | V            |              | sandy shore                              | loggerhead sea turtles   |                  | 6            | U.S. Fish and Wildlife Service           | PO Box 447                                      | Apalachicola    | FL | 32328-0447 | 904 653 8808 |
| Gulf of Mexico: FL | Ten Thousand Islands National Wildlife Refuge                | W            |              | saltmarsh, freshwater marsh              | manatees, green and loggerhead sea turtles                           |                  | 6            | U.S. Fish and Wildlife Service           | Florida Panther NWR, 3860 Tollgate Blvd., #300  | Naples          | FL | 34114      | 941 353 8442 |
| Gulf of Mexico: FL | Waccasassa Bay State Preserve/Cedar Key Scrub State Preserve | X            | 30784        | saltmarsh                                | manatees   |                  | 24           | Florida State Parks                      | P. O. Box 187                                   | Cedar Key       | FL | 32625      | 352 543 5567 |

**SOUTHWEST ATLANTIC**

# Florida Atlantic Sanctuaries



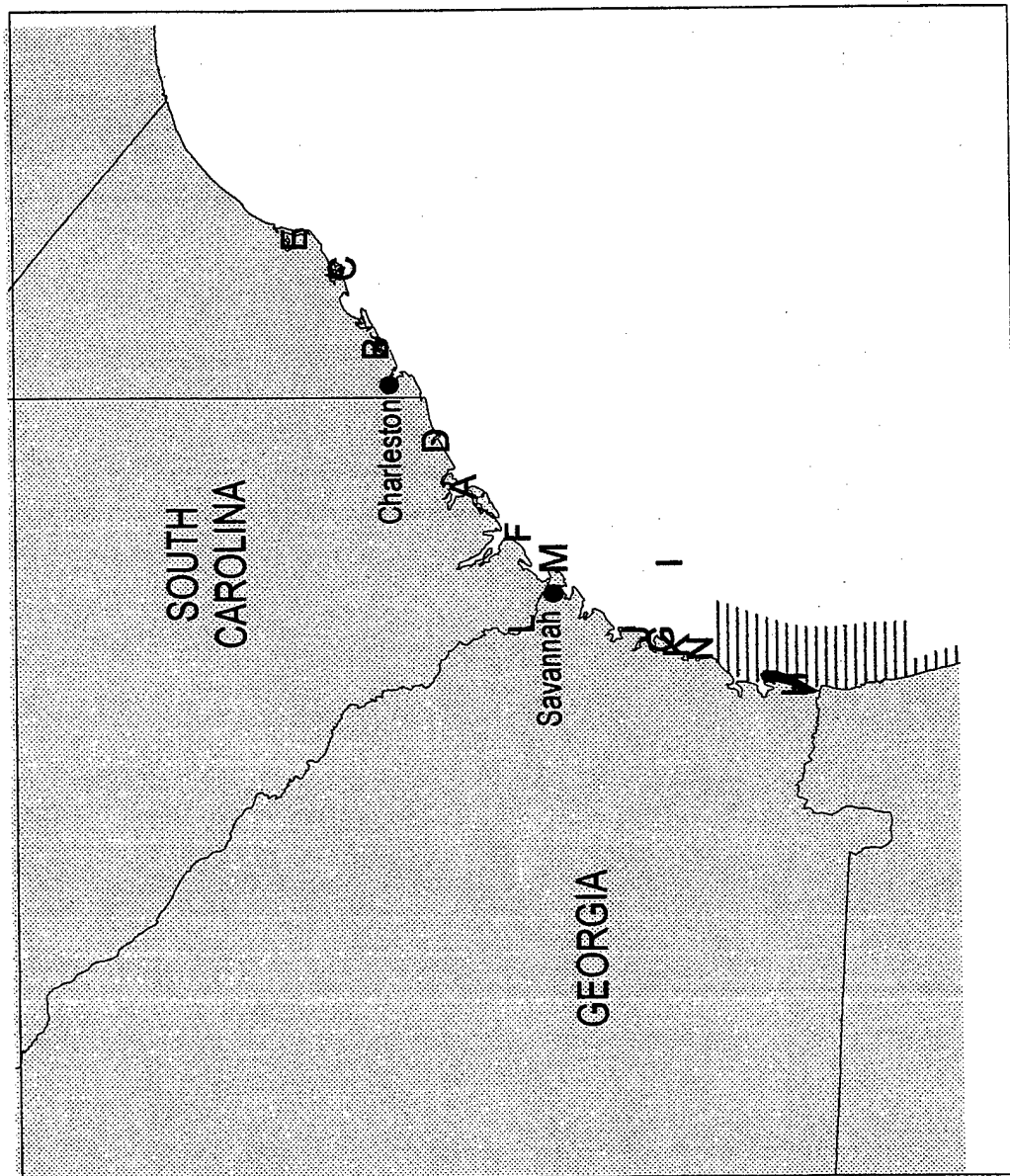
## Florida Atlantic Sanctuaries

- A Amelia Island State Recreation Area
- B Archie Carr NWR
- C Big Talbot Isl. State Park
- D Biscayne National Park
- E Hobe Sound NWR
- F John D. MacArthur Beach State Park
- G Little Talbot Island State Park
- H Merritt Island NWR/Canaveral NS
- I Pelican Island NWR
- J Right Whale Critical Habitat (FL/GA)
- K St. Lucie Inlet State Preserve
- Biscayne National Park
- Archie Carr National Wildlife Refuge
- Merritt Island National Wildlife Refuge
- Right Whale Critical Habitat
- Florida Keys National Marine Sanctuary

Table 8. Florida (Atlantic) sanctuaries and reserves.

| Region     | Name  | Letter Design | Size (acres) | Habitat Types                      | Listed Marine Animals   | Special Comments | Info Sources | Admin   | Street Address  | City             | ST | Zip Code   | Phone #      |
|------------|---|---------------|--------------|------------------------------------|---|------------------|--------------|---|---|------------------|----|------------|--------------|
| NW All: FL | Amelia Island State Recreation Area                                 | A             | >200         | salt marsh, sandy shore            |   |                  | 24           | Florida State Parks   | c/o The Talbot Islands GEOPark, 11435 FL George Road East     | FL George        | FL | 32226      | 904 251 2320 |
| NW All: FL | Archie Carr National Wildlife Refuge                                | B             |              | sandy shore                        | loggerhead, green hawksbill and leatherback sea turtles                                       |                  | 6            | U.S. Fish and Wildlife Service                                  | MI Refuge Manager c/o Merritt Island NWR, PO Box 6504         | Titusville       | FL | 32786-3521 | 407 267 1110 |
| NW All: FL | Big Talbot Island State Park  | C             |              | salt marsh, sandy shore            |   |                  | 13           | Florida State Parks   | c/o The Talbot Islands GEOPark, 11435 FL George Road East     | FL George        | FL | 32226      | 904 251 2320 |
| NW All: FL | Biscayne National Park  | D             | 181500       | mangrove, coral reef               | sea turtles, manatees   |                  | 9, 12        | National Park Service   | P.O. Box 1369   | Homestead        | FL | 33090-1369 | 305 230 7275 |
| NW All: FL | Hobe Sound National Wildlife Refuge                                 | E             | 967          | sandy shore, mangrove              | green, loggerhead, and leatherback sea turtles, manatees, least tern                          |                  | 6            | U.S. Fish and Wildlife Service                                  | 13640 SE Federal Highway                                      | Hobe Sound       | FL | 33455      | 561 546 6141 |
| NW All: FL | John D. MacArthur Beach State Park                                  | F             | 760          | sandy shore, mangrove              | loggerhead, green and leatherback sea turtles   |                  | 13           | Florida State Parks   | 10900 S.R. 703 (ATA)  | North Palm Beach | FL | 33408      | 407 624 6950 |
| NW All: FL | Little Talbot Island State Park                                     | G             |              | salt marsh, sandy shore            |   |                  | 13           | Florida State Parks   | c/o The Talbot Islands GEOPark, 11435 FL George Road East     | FL George        | FL | 32226      | 904 251 2320 |
| NW All: FL | Merritt Island National Wildlife Refuge/Canaveral National Seashore | H             |              | tidal flats/saltmarsh, sandy shore | manatee, green, hawksbill, Kemp ridley, leatherback and loggerhead sea turtles, roseate terns |                  | 6            | U.S. Fish and Wildlife Service                                  | c/o Merritt Island NWR, PO Box 6504                           | Titusville       | FL | 32782      | 417 861 0667 |
| NW All: FL | Pelican Island National Wildlife Refuge                             | I             | 4760         | sandy shore                        | manatees, green, hawksbill, Kemp Ridley, and loggerhead sea turtles                           |                  | 6            | U.S. Fish and Wildlife Service                                  | c/o Merritt Island NWR, PO Box 6504                           | Titusville       | FL | 32782      | 417 861 0667 |
| NW All: FL | Right Whale Critical Habitat (FL/GA)                                | J             |              | open ocean                         | northern right whales   |                  | 16           | National Marine Fisheries Service Office of Protected Resources | 1335 East-West Highway  | Silver Spring    | MD | 20910      | 301 713 2333 |
| NW All: FL | St. Lucie Inlet State Preserve                                      | K             |              | sandy shore, mangrove              | loggerhead, green and leatherback sea turtles   |                  | 13           | Florida State Parks   | c/o Jonathon Dickinson State Park, 16450 S.E. Federal Highway | Hobe South       | FL | 33455      | 407 744 7603 |

# South Carolina and Georgia Sanctuaries



## South Carolina Sanctuaries

- A ACE Basin NERR
- B Bird Key - Stono Heritage Preserve
- C Cape Romain NWR
- D Deveaux Bank Heritage Preserve
- E North Inlet-Winyah Bay NERR
- F Pinckney Island NWR

## Georgia Sanctuaries

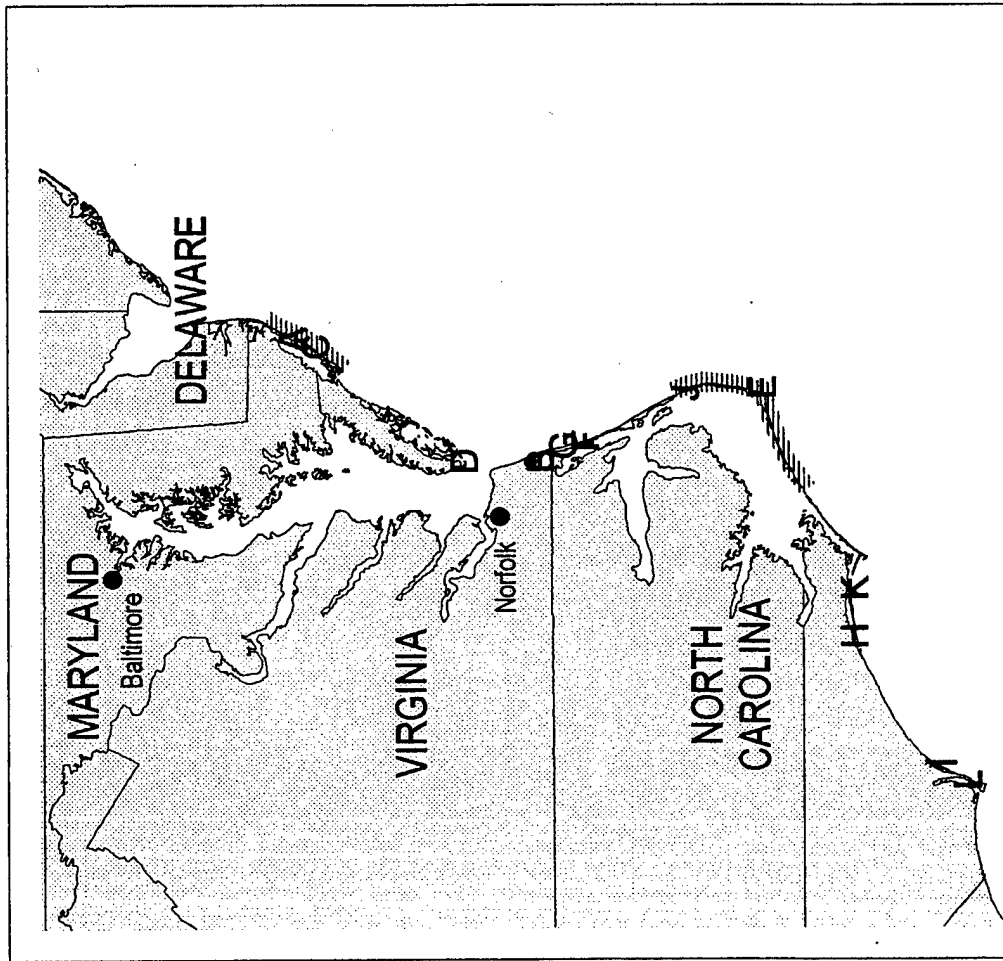
- G Blackbeard Island NWR
- H Cumberland Island National Seashore
- I Gray's Reef NMS
- J Harris Neck NWR
- K Sapelo Island NERR
- L Savannah NWR
- M Wassaw National Wildlife Refuge
- N Wolf Island NWR
- █ Cumberland Island National Seashore
- ▨ Right Whale Critical Habitat

Table 9. South Carolina and Georgia sanctuaries and reserves.

| Region        | Name  | Letter Desig | Size (acres) | Habitat Types                            | Listed Marine Animals                | Special Comments | Info Sources | Admin   | Street Address                          | City          | ST | Zip Code | Phone #      |
|---------------|---|--------------|--------------|--|--------------------------------------|------------------|--------------|---|---|---------------|----|----------|--------------|
| SW Allian: SC | ACE Basin National Estuarine Research Preserve            | A            | 140312       | saltmarsh                                | loggerhead sea turtle, manatee       |                  | 2.5          | South Carolina Dept of Natural Resources                | PO Box 12559                            | Charleston    | SC | 29412    | 803 762 5000 |
| SW Allian: SC | Bird Key - Stono Heritage Preserve                        | B            | 20           | saltmarsh, sandy shore                   |                                      |                  | 14           | South Carolina Dept of Natural Resources                | Po Box 167                              | Columbia      | SC | 29202    | 803 734 3893 |
| SW Allian: GA | Blackbeard Island National Wildlife Refuge                | G            | 5618         | freshwater marsh, saltmarsh, sandy shore | manatees, loggerhead sea turtles     |                  | 6            | Savannah Coastal Refuges/U.S. Fish and Wildlife Service | 1000 Business Center Drive, Suite 10    | Savannah      | GA | 31405    | 912 652 4415 |
| SW Allian: SC | Cape Romain National Wildlife Refuge                      | C            | 34229        | saltmarsh, sandy shore                   | loggerhead sea turtle                |                  | 6            | U.S. Fish and Wildlife Service                          | 5801 Hwy 17N                            | Awendaw       | SC | 29429    | 803 928 3368 |
| SW Allian: GA | Cumberland Island National Seashore                       | H            | 33900        | saltmarsh, sandy shore                   | sea turtles                          |                  | 9            | National Park Service                                   | PO Box 806                              | St. Mary's    | GA | 31558    | 912 882 4338 |
| SW Allian: SC | Devaux Bank Heritage Preserve                             | D            | 15           | sandy shore                              |                                      |                  | 14           | South Carolina Dept of Natural Resources                | Po Box 167                              | Columbia      | SC | 29202    | 803 734 3893 |
| SW Allian: GA | Gray's Reef National Marine Sanctuary                     | I            |              | reefs                                    | right whales, loggerhead sea turtles |                  | 2.5          | NOAA Sanctuaries and Reserves Division                  | 10 Ocean Science Circle                 | Savannah      | GA | 31411    | 912 588 2345 |
| SW Allian: GA | Harris Neck National Wildlife Refuge                      | J            | 2762         | salt marsh, freshwater marsh             | manatees, loggerhead sea turtles     |                  | 6            | Savannah Coastal Refuges/U.S. Fish and Wildlife Service | 1000 Business Center Drive, Suite 10    | Savannah      | GA | 31405    | 912 652 4415 |
| SW Allian: SC | North Inlet-Winyah Bay National Estuarine Wildlife Refuge | E            | 12335        | salt marsh                               | loggerhead sea turtle                |                  | 20           | South Carolina Dept of Natural Resources                | Baruch Marine Laboratory, University of | Georgetown    | SC | 29442    | 803 546 6219 |
| SW Allian: GA | Sapelo Island National Estuarine Research Preserve        | F            |              | saltmarsh                                |                                      |                  | 6            | U.S. Fish and Wildlife Service                          |   |               | SC |          |              |
| SW Allian: GA | Savannah National Wildlife Refuge                         | K            | 17950        | saltmarsh, sandy shore                   | loggerhead turtle                    |                  | 2.5          | Georgia Dept of Natural Resources                       | PO Box 15                               | Sapelo Island | GA | 31327    | 912 485 2251 |
| SW Allian: GA | Wassaw National Wildlife Refuge                           | L            | 25608        | freshwater marsh                         | manatee                              |                  | 6            | Savannah Coastal Refuges/U.S. Fish and Wildlife Service | 1000 Business Center Drive, Suite 10    | Savannah      | GA | 31405    | 912 652 4415 |
| SW Allian: GA | Wolf Island National Wildlife Refuge                      | M            | 10070        | sandy shore, saltmarsh                   | loggerhead sea turtles               |                  | 6            | Savannah Coastal Refuges/U.S. Fish and Wildlife Service | 1000 Business Center Drive, Suite 10    | Savannah      | GA | 31405    | 912 652 4415 |
| SW Allian: GA |   | N            | 5126         | saltmarsh, sandy shore                   | loggerhead sea turtles, manatees     |                  | 6            | Savannah Coastal Refuges/U.S. Fish and Wildlife Service | 1000 Business Center Drive, Suite 10    | Savannah      | GA | 31405    | 912 652 4415 |

**NORTHWEST ATLANTIC**

# Virginia, Maryland, Delaware and North Carolina Sanctuaries



Virginia, Maryland and Delaware Sanctuaries

A Assateague Island NS

B Back Bay NWR

C Chincoteague NWR

D Fisherman Island NWR

North Carolina Sanctuaries

E Cape Hatteras NS

F Currituck Banks - North Carolina NERR

G Currituck NWR

H Hammocks Beach State Park

I Masonboro Island - North Carolina NERR

J Pea Island NWR

K Rachel Carson - North Carolina NERR

L Zeke's Island - North Carolina NERR

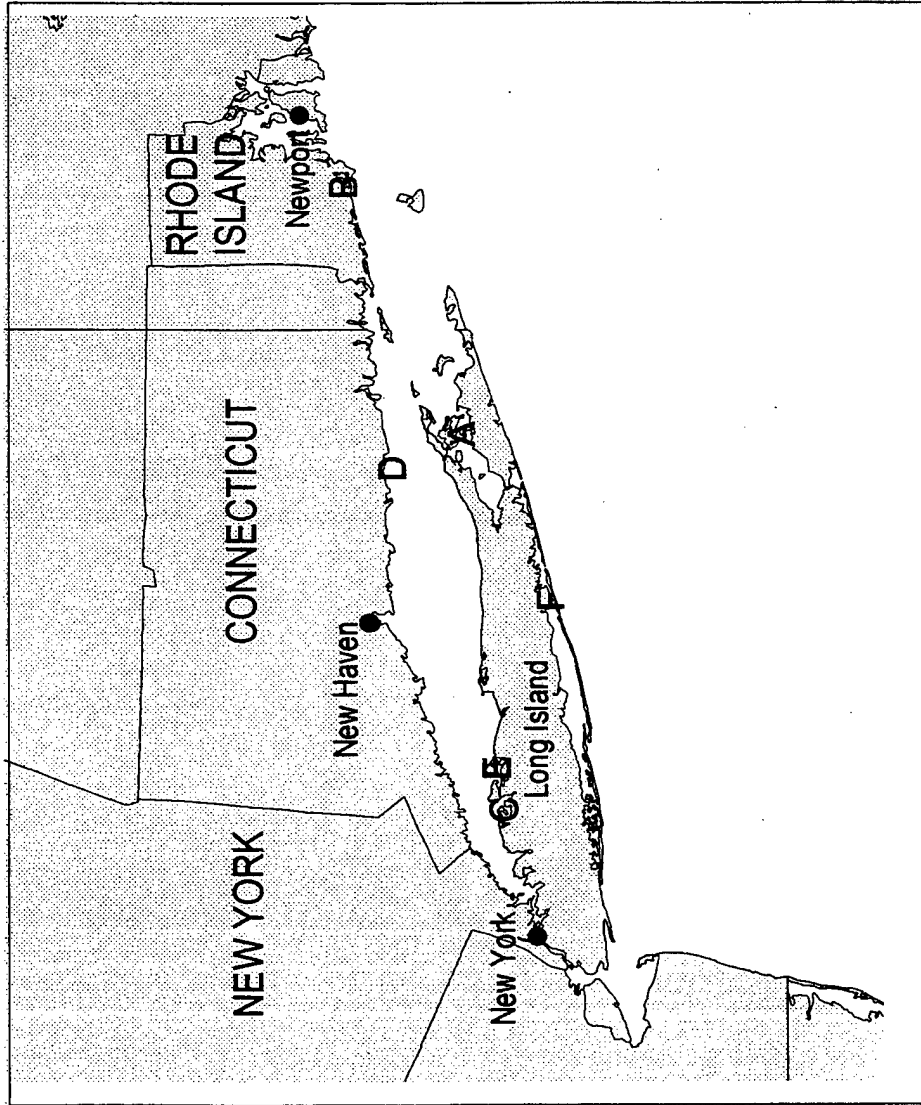
||||| Cape Hatteras National Seashore

||||| Assateague Island National Seashore

Table 10. Virginia, Maryland, Delaware and North Carolina sanctuaries and reserves.

| Region        | Name  | Letter Desig | Size (acres) | Habitat Types             | Listed Marine Animals                                      | Special Comments | Info Sources | Admin                          | Street Address                                    | City           | ST | Zip Code   | Phone #      |
|---------------|---|--------------|--------------|---------------------------|--|------------------|--------------|--------------------------------|---|----------------|----|------------|--------------|
| NW Allian: MD | Assateague Island National Seashore   | A            | 18000        | sandy shore, saltmarsh    |  |                  | 9            | National Park Service          | 7206 National Seashore Lane                       | Berlin         | MD | 21811      | 410 641 1441 |
| NW Allian: VA | Back Bay National Wildlife Refuge   | B            |              | saltmarsh, sandy shore    | loggerhead turtles   |                  | 6            | U.S. Fish and Wildlife Service | 4005 Sandpiper Rd.                                | Virginia Beach | VA | 23456      | 804 721 2412 |
| NW Allian: NC | Cape Hatteras National Seashore   | E            |              | sandy shore, saltmarsh    |  |                  | 9            | National Park Service          | Route 1, Box 675                                  | Manteo         | NC | 27954      | 919 473 2111 |
| NW Allian: VA | Chincoteague National Wildlife Refuge   | C            | 14014        | sandy shore, saltmarsh    | loggerhead turtles   |                  | 6            | U.S. Fish and Wildlife Service | Box 62  | Chincoteague   | VA | 23336      | 804 336 6122 |
| NW Allian: NC | Currituck Banks Component - North Carolina National Estuarine Research Reserve  | F            | 960          | salt marsh, sandy beaches | loggerhead sea turtles                                     |                  | 20           |                                | UNCW/CMSR, 7205 Wrightsville Ave.                 | Wilmington     | NC | 28403      | 919 256 3721 |
| NW Allian: NC | Currituck National Wildlife Refuge  | G            |              | sandy shore               | loggerhead sea turtles                                     |                  | 6            | U.S. Fish and Wildlife Service | c/o Mackay Island NWR, PO Box 39                  | Krotts Island  | NC | 27950-0039 | 919 429 3100 |
| NW Allian: VA | Fisherman Island National Wildlife Refuge                                       | D            | 1700         | saltmarsh, sandy shore    | kemp ridley, loggerhead, green and leatherback sea turtles |                  | 6, 18        | U.S. Fish and Wildlife Service | c/o Eastern Shore of Virginia NWR, RFD 1 Box 122B | Cape Charles   | VA | 23336      | 804 331 2760 |
| NW Allian: NC | Hammocks Beach State Park   | H            | 736          | sandy shore, saltmarsh    | loggerhead sea turtles                                     |                  | 15           | North Carolina State Parks     | 1572 Hammocks Beach Road                          | Swansboro      | NC | 28584      | 919 326 4881 |
| NW Allian: NC | Masonboro Island Component - North Carolina National Estuarine Research Reserve | I            | 5097         | salt marsh, sandy beaches | loggerhead and green sea turtles                           |                  | 20           |                                | UNCW/CMSR, 7205 Wrightsville Ave.                 | Wilmington     | NC | 28403      | 919 256 3721 |
| NW Allian: NC | Pea Island National Wildlife Refuge   | J            | 5980         | sandy shore               | green and loggerhead sea turtles                           |                  | 6            | U.S. Fish and Wildlife Service | c/o Alligator River NWR, PO Box 1969              | Manteo         | NC | 27954      | 919 887 2394 |
| NW Allian: NC | Rachel Carson Component - North Carolina National Estuarine Research Reserve    | K            | 2625         | salt marsh, sandy beaches | loggerhead sea turtles                                     |                  | 20           |                                | UNCW/CMSR, 7205 Wrightsville Ave.                 | Wilmington     | NC | 28403      | 919 256 3721 |
| NW Allian: NC | Zake's Island Component - North Carolina National Estuarine Research Reserve    | L            | 1160         | salt marsh, sandy beaches | loggerhead sea turtles                                     |                  | 20           |                                | UNCW/CMSR, 7205 Wrightsville Ave.                 | Wilmington     | NC | 28403      | 919 256 3721 |

# New York, Rhode Island and Connecticut Sanctuaries



New York, Connecticut and Rhode Island Sanctuaries

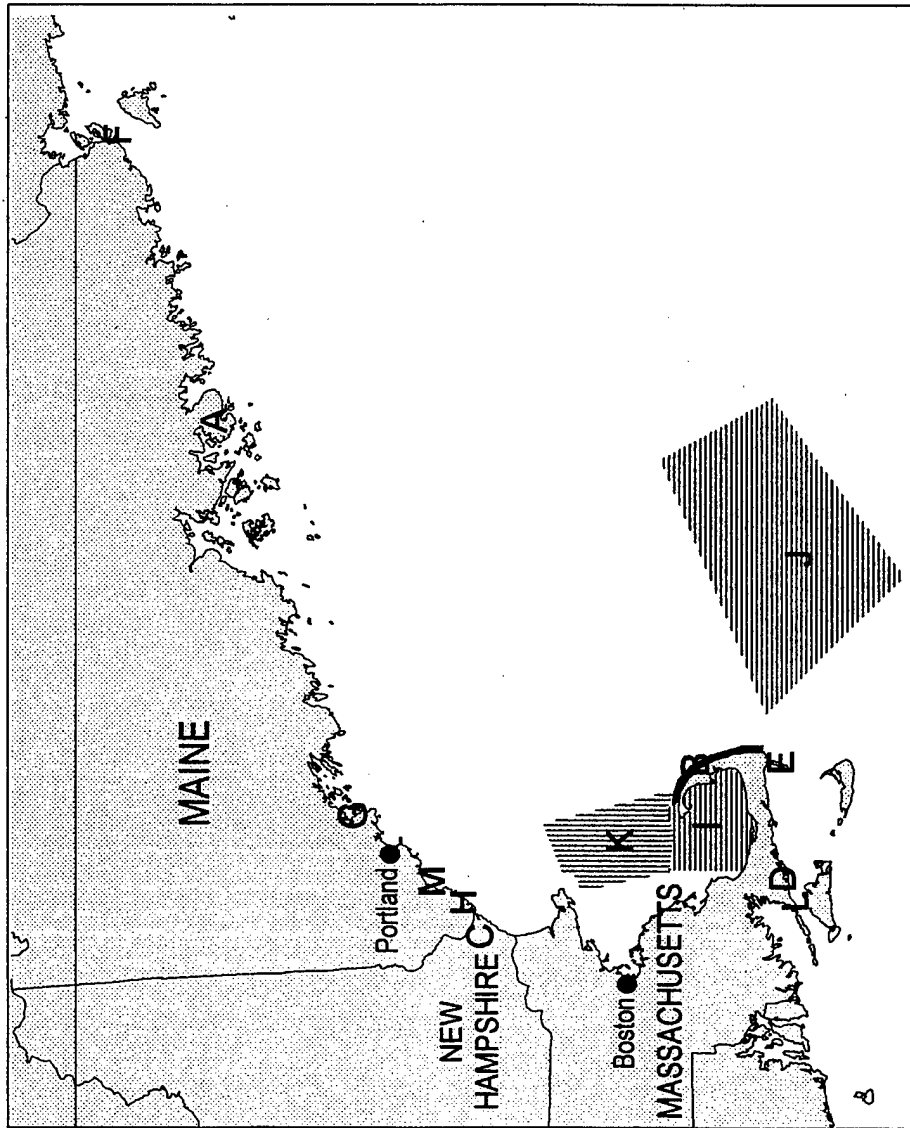
- A Elizabeth A. Morton NWR
- B Ningret NWR
- C Oyster Bay NWR
- D Stewart B. McKinney NWR
- E Target Bay NWR
- F Wertheim NWR



Table 11. New York, Rhode Island and Connecticut sanctuaries and reserves.

| Region          | Name   | Letter Desig | Size (acres) | Habitat Types                            | Listed Marine Animals                                 | Special Comments | Info Sources | Admin                          | Street Address                     | City        | ST | Zip Code | Phone #      |
|-----------------|--|--------------|--------------|--|---|------------------|--------------|--------------------------------|------------------------------------|-------------|----|----------|--------------|
| NW Allan:<br>NY | Elizabeth A. Morton National Wildlife Refuge | A            |              | sandy shore, saltmarsh, freshwater marsh | Kemp ridley and loggerhead sea turtles, roseate terns |                  | 6            | U.S. Fish and Wildlife Service | c/o Long Island Complex, PO Box 21 | Shirley     | NY | 11967    | 516 286 0485 |
| NW Allan:<br>RI | Ningret National Wildlife Refuge             | B            |              |  | roseate tern  |                  | 6            | U.S. Fish and Wildlife Service | PO Box 307                         | Charlestown | RI | 2813     | 401 364 9124 |
| NW Allan:<br>NY | Oyster Bay National Wildlife Refuge          | C            |              | saltmarsh, freshwater marsh, sandy shore | Kemp ridley, leatherback and loggerhead sea turtles   |                  | 6            | U.S. Fish and Wildlife Service | c/o Long Island Complex, PO Box 21 | Shirley     | NY | 11967    | 516 286 0485 |
| NW Allan:<br>CT | Stewart B. McKinney National Wildlife Refuge | D            |              |  | roseate tern  |                  | 6            | U.S. Fish and Wildlife Service | PO Box 1030                        | Westbrook   | CT | 6498     | 203 399 2513 |
| NW Allan:<br>NY | Target Bay National Wildlife Refuge          | E            |              | saltmarsh, sandy shore                   | loggerhead turtles, least and common terns            |                  | 6            | U.S. Fish and Wildlife Service | c/o Long Island Complex, PO Box 21 | Shirley     | NY | 11967    | 516 286 0485 |
| NW Allan:<br>NY | Wertheim National Wildlife Refuge            | F            |              | saltmarsh, sandy shore                   | loggerhead turtles                                    |                  | 6            | U.S. Fish and Wildlife Service | c/o Long Island Complex, PO Box 21 | Shirley     | NY | 11967    | 516 286 0485 |

# Massachusetts, New Hampshire and Maine Sanctuaries



Massachusetts, New Hampshire and Maine Sanctuaries

- A Acadia National Park
- B Cape Cod National Seashore
- C Great Bay NERR
- D Mashpee NWR
- E Monomoy NWR
- F Petit Manan NWR
- G Pond Island NWR
- H Rachel Carson NWR
- I Right Whale Crit. Hab. - Cape Cod Bay
- J Right Whale Crit. Hab. - Great South Channel
- K Stellwagen Bank NMS
- L Waquoit Bay NERR
- M Wells NERR
- Stellwagen Bank NMS
- Right Whale Critical Habitat
- Cape Cod National Seashore

Table 12. Massachusetts, New Hampshire and Maine sanctuaries and reserves.

| Region        | Name   | Letter Desig | Size (acres) | Habitat Types          | Listed Marine Animals                                    | Special Comments | Info Sources | Admin   | Street Address                      | City          | ST | Zip Code | Phone #      |
|---------------|--|--------------|--------------|------------------------|--|------------------|--------------|---|-------------------------------------|---------------|----|----------|--------------|
| NW Allian: ME | Acedia National Park                               | A            | 40000        | rocky islands, forest  | roseate and least terns                                  |                  | 9            | National Park Service   | PO Box 177                          | Bar Harbor    | ME | 4609     | 207 288 3338 |
| NW Allian: MA | Cape Cod National Seashore                         | B            | 43557        | sandy shore            | right whales   |                  | 9            | National Park Service   | 99 Marconi Site Road                | Wellfleet     | MA | 2667     | 508 349 3785 |
| NW Allian: NH | Great Bay National Estuarine Research Reserve      | C            | 5280         | sandy shore, saltmarsh | common terns   |                  | 5            | N.H. Fish and Game Department                                   | 37 Concord Rd                       | Durham        | NH | 3824     | 603 868 1095 |
| NW Allian: MA | Mashpee National Wildlife Refuge                   | D            |              |                        | roseate terns  |                  | 6            | U.S. Fish and Wildlife Service                                  | c/o Great Meadows NWR, Weir Hill Rd | Sudbury       | MA | 1776     | 508 443 4661 |
| NW Allian: MA | Monomoy National Wildlife Refuge                   | E            |              | sandy shore            | roseate terns  |                  | 6            | U.S. Fish and Wildlife Service                                  | Wilks Way Morris Island             | Chatham       | MA | 2633     | 508 945 0594 |
| NW Allian: ME | Petit Manan National Wildlife Refuge               | F            |              |                        | roseate and least terns                                  |                  | 6            | U.S. Fish and Wildlife Service                                  | Box 279                             | Milbridge     | ME | 4658     | 207 546 2124 |
| NW Allian: ME | Pond Island National Wildlife Refuge               | G            | 10           | sandy shore            | roseate terns  |                  | 6            | U.S. Fish and Wildlife Service                                  | Box 279                             | Milbridge     | ME | 4658     | 207 546 2124 |
| NW Allian: ME | Rachel Carson National Wildlife Refuge             | H            | 4500         |                        | roseate and least terns                                  |                  | 6            | U.S. Fish and Wildlife Service                                  | Box 751                             | Wells         | ME | 4090     | 207 646 9226 |
| NW Allian: MA | Right Whale Critical Habitat - Great South Channel | I            |              | shoal                  | right, humpback, fin, blue, sei whales and roseate terns |                  | 16           | National Marine Fisheries Service Office of Protected Resources | 1335 East-West Highway              | Silver Spring | MD | 20910    | 301 713 2333 |
| NW Allian: MA | Right Whale Critical Habitat - Cape Cod Bay        | J            |              | shoal                  | right, humpback, fin, blue, sei whales and roseate terns |                  | 16           | National Marine Fisheries Service Office of Protected Resources | 1335 East-West Highway              | Silver Spring | MD | 20910    | 301 713 2333 |
| NW Allian: MA | Stellwagen Bank National Marine Sanctuary          | K            |              |                        | right, humpback, fin, blue, sei whales and roseate terns |                  | 5            | NOAA Sanctuaries and Reserves Division                          | 14 Union Street                     | Plymouth      | MA | 2360     | 508 747 1691 |
| NW Allian: MA | Waquoit Bay National Estuarine Research Reserve    | L            | 2250         | sandy shore, saltmarsh | roseate and least terns                                  |                  | 5            | NOAA Sanctuaries and Reserves Division                          | PO Box 3092                         | Waquoit       | MA | 2536     | 508 457 0495 |
| NW Allian: ME | Wells National Estuarine Research Reserve          | M            | 1600         | sandy shore, saltmarsh | least tern   |                  | 5            | NOAA Sanctuaries and Reserves Division                          | 342 Laudholm Farm Road              | Wells         | ME | 4090     | 207 646 1555 |

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- 24 Florida Parks web page: <http://www.dep.state.fl.us/parks/>