1989 Annual Report of the Sea Turtle Stranding and Salvage Network: Atlantic and Gulf Coasts of the United States

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The Sea Turtle Stranding and Salvage Network (STSSN) was formally established in 1980 to collect information on and document strandings of marine turtles along the U.S. Gulf of Mexico and Atlantic coasts. The network encompasses the coastal areas of the eighteen state region from Maine through Texas, and includes portions of the U.S. Caribbean. Data are compiled through the efforts of network participants who document marine turtle strandings in their respective areas and contribute those data to the centralized STSSN data base.

This report summarizes marine turtle strandings documented through the efforts of the STSSN during calendar year 1989. These numbers are considered minimum stranding figures, as they are reported strandings only, not all stranding events. Effort expended in the collection of stranding data during 1989 varied both geographically and temporally. Coverage ranged from systematic weekly (or more frequent) sampling to no sampling at all in some areas.

A total of 2216 stranded marine turtles were reported during 1989. Of these, 2192 were "wild" strandings and the remaining 24 were known headstarted turtles. Headstarted turtles are hatched and raised in captivity for approximately one year before being tagged and released. Strandings of headstarted turtles are documented in Table 32, but are <u>not</u> included in any of the figures presented in the text or in the histograms. Strandings of headstarted turtles are excluded because they may represent a bias if their stranding was an artifact of captive rearing and release. Reports of incidentally captured turtles and live sighting reports received through the network were archived, but are not included in this report as these records were not considered to be true strandings. True strandings are defined as turtles which wash ashore dead or alive or are found floating dead or alive (generally in a weakened condition).

Seventeen states reported strandings during the twelve month period. They are: Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Massachusetts and Maine. No stranding reports were received from New Hampshire. For the U.S. Caribbean, records were received from Puerto Rico and the U.S. Virgin Islands.

ANNUAL COMPARISON

Figure 1 depicts annual stranding totals for all species combined over the entire network area. Direct annual comparisons are complicated by the variation in effort between and/or within years. Network-wide, data collection efforts have been most consistent since 1984. The 1989 stranding total of 2192 is a 10.0% increase over the 1988 stranding total. The 1989 total is the second highest annual total, surpassed only by 1987, and accounts for 13.2% of all reported strandings over the ten year period 1980-1989.

STATE AND REGIONAL DISTRIBUTION

Reported strandings during 1989 are summarized by state in Table 1 and Figure 2. Florida reported the highest number of strandings during 1989, accounting for 54% of the total (17% Florida-Gulf, 37% Florida-Atlantic). Texas accounted for 12% of the total reported strandings, followed by Georgia and North Carolina accounting for 8% and 7%, respectively.

Regionally, 33.3% of total strandings were reported from the Gulf of Mexico (TX, LA, MS, AL, FL-Gulf), 56.2% from the southeast U.S. Atlantic (FL-Atlantic, GA, SC, NC), 10.0% from the northeast U.S. Atlantic (VA, MD, DE, NJ, NY, CT, RI, MA, NH, ME), and 0.5% from the U.S. Caribbean (PR, USVI). Stranding records are summarized on a detailed state by state basis in Tables 4-23. These tables summarize strandings by species and month (all counties combined) and by county and month (all species combined).

Network-wide, 78% of all reports were classified as offshore strandings and 22% were classified as inshore strandings. Offshore strandings are defined as strandings occurring on the ocean beaches, while inshore strandings are those occurring landward of the ocean coastline, primarily in bays and sounds. The regional distribution of inshore versus offshore strandings for 1989 (excluding the Caribbean) is as follows:

	GULF	SOUTHEAST U.S.	NORTHEAST U.S.
INSHORE	117 (24.2%)	168 (13.6%)	133 (60.7%)
OFFSHORE	553 (75.8%)	1065 (86.4%)	86 (39.3%)

SPECIES COMPOSITION

Throughout the network, loggerheads (*Caretta caretta*) were the most frequently stranded species making up 65.3% (1432) of the total. Green turtles (*Chelonia mydas*) were the second most frequently reported species at 15.0% (328); Kemp's ridley (*Lepidochelys kempi*) strandings comprised 8.4% (184) of the total; leatherbacks (*Dermochelys coriacea*) accounted for 4.7% (104) of all reports; and hawksbills (*Eretmochelys imbricata*) were reported least frequently making up 1.6% (35) of the total. Turtles not identified to species accounted for 5.0% (109) of all reports. Figures 3-5 depict total strandings by species for the Gulf of Mexico, southeast U.S. Atlantic, and northeast U.S. Atlantic, respectively.

Within each region (excepting the Caribbean), loggerheads were the most frequently stranded species accounting for 56% (408), 72% (886), and 63% (138) of the region totals for the Gulf, southeast U.S. Atlantic, and northeast U.S. Atlantic, respectively. In the Gulf of Mexico, green turtles were the second most frequently stranded species comprising 18% (128) of the total, followed by

Kemp's ridleys comprising 13% (98). In the southeast U.S. Atlantic, green turtles were the second most frequently stranded species accounting for 16% (191) of all reports, while leatherbacks and Kemp's ridleys each accounted for 4%, (52) and (43) respectively. In the northeast U.S. Atlantic, Kemp's ridley strandings accounted for 20% (43) of the region total, with leatherbacks comprising 12% (26). A single hawksbill stranded in Massachusetts in November. This is the first hawksbill stranding ever reported to the STSSN from the northeast U.S.

As compared to 1988, strandings of green turtles increased 65% for all regions combined. This increase occurred primarily in the Gulf of Mexico and southeast U.S. Atlantic with green turtle strandings in these two regions increasing from 45 to 128 and 147 to 191, respectively. Approximately 60 of the strandings from the Gulf of Mexico were the direct result of a cold-stunning event which happened in southern Texas in February. Green turtle strandings in the northeast U.S. and U.S. Caribbean were consistent with 1988 levels.

Strandings of leatherbacks and hawksbills in 1989 increased 31% and 29%, respectively, over 1988 totals for all regions combined. The increase in leatherback strandings occurred in the Gulf of Mexico and southeast U.S. Atlantic with increases from 10 to 25 and 30 to 52, respectively. Leatherback strandings in the northeast U.S. Atlantic decreased from 38 to 26 during this same time period. The increase in hawksbill strandings occurred in the Gulf of Mexico with strandings increasing from 15 in 1988 to 25 in 1989. Strandings of hawksbills in all other regions remained consistent with 1988 totals.

Strandings of Kemp's ridleys decreased 16% for all regions combined. This overall decrease occurred only in the southeast U.S. Atlantic with strandings going from 123 in 1988 to 43 in 1989. Strandings of Kemp's ridleys increased in the Gulf of Mexico and northeast U.S. Atlantic from 78 to 98 and 19 to 43, respectively.

Strandings of loggerheads in 1989 remained consistent with 1988 levels for all regions combined. Loggerhead strandings increased from 309 to 408 in the Gulf of Mexico and decreased from 158 to 138 in the northeast U.S. Atlantic. Strandings of loggerheads in the southeast U.S. remained virtually unchanged.

DISTRIBUTION BY STATISTICAL ZONE

Strandings were summarized by statistical zones to examine the geographic distribution within regions. The statistical zones utilized were originally designed by the Bureau of Commercial Fisheries (now NMFS) for shrimp catch and effort data collection and have subsequently been used to define areas where turtle excluder devices (TEDs) are required. The actual coastal areas encompassed by each of the zones are not equal. Tables 24-26 summarize 1989 strandings by month and zone for the Gulf of Mexico, southeast U.S. Atlantic and northeast U.S. Atlantic, respectively.

There are 23 zones in the U.S. Gulf of Mexico (Figure 6). Zones 1 through 21 are numbered consecutively along the Gulf coast from the Florida Keys to the Mexico border. Zones 24 and 25 are partial zones, shared with the southeast U.S. Atlantic region, and include the area west of longitude 80 30'. Total strandings by zone for the Gulf of Mexico are depicted in Figure 6. Strandings in the eastern Gulf of Mexico (zones 1-12, 24, 25) accounted for 63% (462) of the total, while strandings in the western Gulf (zones 13-21) accounted for the other 37% (268). In the eastern Gulf, over half of the strandings occurred in zones 4 and 5, with 125 and 116 being reported, respectively. This represents a 105% increase over the 1988 total for strandings in these two zones. Fifty-seven percent (57%) (56) of all Gulf Kemp's ridley strandings were reported from the western Gulf, with the majority of these turtles stranding in zones 18, 19, and 20 along the Texas coast.

Thirteen statistical zones are defined by degree of latitude for the southeast U.S. Atlantic. Zones are numbered from south to north, based on the line of latitude which forms the southern boundary of the zone (Figure 7). Zones 24 and 25 are partial zones which include the area east of longitude 80 30'. Zone 36 is also a partial zone, ending at the North Carolina/Virginia border. Figure 7 depicts total southeast U.S. strandings by statistical zone. The highest stranding total was reported from zone 30 off the northeast Florida coast and southern tip of Georgia with 18% (218) of all southeast U.S. strandings occurring in this zone. Zone 30 has had the highest number of strandings in the network since 1984, however, the total for 1989 represents a 23% decrease in strandings from the 1988 total. Zones 29 and 27 off the Florida coast accounted for the second and third highest stranding frequencies, comprising 16% and 15% of the region total, respectively. Zones 29, 30 and 31 accounted for 72% of all southeast U.S. Kemp's ridley strandings. Kemp's ridley strandings in these zones decreased from 101 in 1988 to 31 in 1989. Strandings of Kemp's ridleys in all other zones remained relatively consistent with 1988 levels.

Nine statistical zones are defined for the northeast U.S. Atlantic beginning with the Virginia portion of Zone 36 and continuing north through Zone 44, ending at the Canadian border (Figure 8). The northeast U.S. portion of zone 36 and zone 37 accounted for 55% of the total northeast U.S. strandings and primarily represent turtles stranding in Chesapeake Bay and along the Virginia barrier beaches. Strandings in zones 40 and 41 accounted for 32% of the total northeast U.S. strandings. Approximately half of these strandings were the result of cold-stunning as water temperatures dropped in late fall and early winter. Seventy-nine percent (79%) of all northeast U.S. Kemp's ridley strandings were reported from zones 41 and 42, the majority resulting from cold-stunning.

SYSTEMATIC SAMPLING

Sampling in selected statistical zones was completed systematically to develop an index of mortality that can be compared spatially and

temporally. For 1989, sampling was conducted either aerially or on the ground within zones 4 and 5 by the Florida Department of Natural Resources. Sampling within zones 17 through 21 was coordinated by the NMFS Southeast Fisheries Center, Galveston Laboratory. Dr. Lew Ehrhart, University of Central Florida, continued to sample via aerial survey in zones 28 through 30. The Georgia Department of Natural Resources conducted ground surveys in zone 31. In South Carolina, the Department of Wildlife and Marine Resources continued to sample, as in the past, on a systematic basis within zone 32.

Given the systematic sampling regime within these zones and that the stranding data reported still represents minimum numbers, these data, when standardized for effort, should provide an index of total mortality. The peak in total strandings in the western Gulf of Mexico (zones 17-21) occurred in February and was a direct result of many green turtles being affected by cold-stunning in zones 20 and 21. A secondary peak in zones 17-21 occurred during April/May (Table 28). In the eastern Gulf of Mexico (zones 4 and 5) strandings peaked during March/April with almost half of the strandings in these zones occurring in these two months (Table 27). August was the peak stranding month for zones 28-30, accounting for 21% of all strandings in these zones (Table 29). In zone 31 almost half the total strandings for the year occurred in August/September (Table 30). In South Carolina (zone 32) the peak in total strandings occurred during the summer months with 77% of total strandings reported during June, July and August (Table 31).

TEMPORAL DISTRIBUTION OF STRANDINGS

Table 2 summarizes 1989 strandings by state and month for all species combined. Table 3 summarizes strandings by species and month for all states combined. Figures 9-11 depict monthly stranding frequencies for 1988 and 1989 for the Gulf of Mexico, southeast U.S. Atlantic and northeast U.S. Atlantic, respectively.

The monthly frequency distribution for Gulf of Mexico strandings is presented in Figure 9. Strandings occurred in all months with a peak during April. Strandings in the Gulf of Mexico increased over 1988 levels in all months except July and November.

In the southeast U.S. Atlantic (Figure 10), strandings peaked during the summer months of May - August. Strandings were relatively consistent with the previous year with the exception of January which had twice as many strandings and December which had less than half the number of strandings reported in 1988.

In the northeast U.S. Atlantic (Figure 11), June was the peak stranding month. Overall stranding frequencies followed the same general trend by month in 1989 as they did in 1988 with the exception of November and December which were higher due to an increased number of cold-stunned turtles.

CONDITION OF STRANDED TURTLES

Of 2192 stranded turtles, 91.8% were dead, 7.0% were alive, and the conditions of the remaining 1.2% were not recorded. Of the 154 live turtles, 27% were released, 47% subsequently died, and the fates of the remaining 40 turtles (26%) are unknown. A total of 126 turtles (5.7%) were reported as necropsied. The conditions of the 2013 turtles stranded dead were reported as follows:

Fresh Dead	484 (24.0%)
Moderately Decomposed	792 (39.3%)
Severely Decomposed	585 (29.1%)
Dried Carcass	59 (2.9%)
Skeleton, Bones Only	93 (4.6%)

CARCASS ANOMALIES

Observations (not necessarily causes of death) recorded on stranding reports are coded as a permanent part of each stranding record. Selected carcass anomalies are summarized below; 1988 values are given for comparison. These figures are considered minimum percent occurrences, as a report form lacking remarks does not always indicate a "clean" turtle. Used herein, "entangled" implies washed ashore (i.e. a true stranding) with the entangling materials still attached to the turtle.

	1988	1989
Boat Related Injuries (Prop or Collision)	8.6%	8.2%
Carapace Damage (Unknown Cause)	10.3%	9.6%
Plastron Damage (Unknown Cause)	0.9%	1.0%
Skull Injuries	2.4%	2.8%
Skull Missing	3.2%	3.4%
Skull & Flipper(s) Combination Missing	7.4%	7.2%
Flipper(s) Missing (Unknown Cause)	7.7%	6.3%
Flipper(s) Missing (Man Induced)	0.9%	0.3%
Partial Flipper Damage (Unknown Cause)	9.5%	7.8%
Bullet Wounds	0.5%	0.7%
Apparent Shark Wounds	1.0%	1.9%
External Tumors	1.3%	1.9%
Apparent Deliberate Mutilation	3.0%	2.8%
Tar or Oil Impact	0.2%	0.2%
Cold Stun Related	0.3%	5.3%
Entangled in Fishing Line	0.6%	1.1%
Entangled in Fishing Net	0.3%	0.2%
Entangled in Non-Fishing Gear Materials	0.2%	0.3%
Rope(s) Tied to Flippers, Neck or Body	0.7%	0.4%
Fishing Line Protruding From Mouth or Cloaca	0.4%	0.3%
Fishing Hook in Mouth	0.3%	0.3%
Plastic Ingestion (Non-Fishing Gear)	4.9%*	3.2%*
Fishing Hook in Digestive Tract	0.7%*	0.0%*
Fishing Line in Digestive Tract	0.7%*	0.0%*

*Rates of occurrence of anomalies observable only upon necropsy are expressed as a percentage of turtles necropsied (N=126).

ACKNOWLEDGEMENTS

We would like to thank the many network participants who documented strandings of marine turtles during 1989. Special thanks go to the state coordinators (listed on the following pages) for verifying reports and making sure they are received at the centralized database in a timely manner. It is through the dedicated efforts of these people that the network functions effectively.

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(March 1992)

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Table 1. Marine turtle strandings reported from 1 January - 31 December 1989 by state and species of occurrence. All months are combined. Only states which reported strandings are included.

State	Species*						
	CC	CM	DC	EI	LK	UN	TOTAL
Texas	111	66	5	22	48	3	255
Louisiana	17	0	2	0	12	24	55
Mississippi	5	0	5	0	6	0	16
Alabama	7	0	10	0	3	8	28
Florida (Gulf)	268	62	3	3	29	11	376
Florida (Atlantic)	550	173	27	6	15	41	812
Georgia	136	2	5	0	21	5	169
South Carolina	76	2	12	0	4	2	96
North Carolina	124	14	9	0	2	7	156
Virginia	111	2	3	0	5	1	122
Maryland	1	0	0	0	0	0	1
Delaware	0	0	0	0	0	7	7
New Jersey	15	0	3	0	1	0	19
New York	5	0	11	0	12	0	28
Connecticut	1	0	0	0	0	0	1
Rhode Island	1	0	7	0	0	0	8
Massachusetts	4	1	0	1	26	0	32
Maine	0	0	1	0	0	0	1
Puerto Rico	0	1	1	1	0	0	3
U.S. Virgin Islands	0	5	0	2	0	0	7
TOTAL	1432	328	104	35	184	109	2192

*CC = C.caretta, CM = C.mydas, DC = D.coriacea, EI = E.imbricata, LK = L.kempi, UN = Unidentified

Table 2. Marine turtle strandings reported from 1 January - 31 December 1989 by state and month of occurrence. All species are combined.

STATE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Texas	8	51	16	43	35	8	11	26	15	20	12	10	255
Louisiana	0	0	0	1	8	21	9	13	3	0	0	0	55
Mississippi	0	0	0	2	4	6	1	3	0	0	0	0	16
Alabama	0	0	0	1	4	15	6	2	0	0	0	0	28
Florida (Gulf)	26	38	66	83	40	27	20	19	8	13	9	27	376
Florida (Atl)	74	32	39	59	94	47	101	140	59	85	53	29	812
Georgia	1	1	0	5	9	15	22	43	41	18	13	1	169
South Carolina	1	0	0	1	12	31	19	15	11	2	4	0	96
North Carolina	5	2	3	4	33	30	18	17	7	4	24	9	156
Virginia	0	0	0	0	26	40	16	9	13	8	3	7	122
Maryland	0	0	0	0	0	0	0	0	0	1	0	0	1
Delaware	0	0	0	0	0	0	0	0	0	7	0	0	7
New Jersey	0	0	0	0	0	3	2	6	6	2	0	0	19
New York	0	0	0	0	3	1	1	7	3	2	5	6	28

(continued)

Table 2. Continued.

STATE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Connecticut	0	0	0	0	0	0	0	0	1	0	0	0	1
Rhode Island	0	0	0	1	0	1	0	4	1	0	1	0	8
Massachusetts	0	0	0	1	1	0	0	0	0	1	18	11	32
Maine	0	0	0	0	0	0	0	0	0	1	0	0	1
Puerto Rico	0	0	0	0	3	0	0	0	0	0	0	0	3
Virgin Islands	0	1	2	2	0	0	0	0	0	0	2	0	7
TOTAL	115	125	126	203	272	245	226	304	168	164	144	100	2192

Table 3. Marine turtle strandings reported from 1 January - 31 December 1989 by species and month of occurrence. All states are combined.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	60	58	85	145	197	170	164	221	129	107	68	28	1432
C. mydas	36	52	20	18	26	18	29	24	11	21	28	45	328
D. coriacea	1	3	5	14	24	17	2	17	8	1	10	2	104
E. imbricata	1	1	3	2	1	1	1	14	5	0	2	4	35
L. kempi	13	8	7	21	14	16	14	11	11	20	30	19	184
Unidentified	4	3	6	3	10	23	16	17	4	15	6	2	109
TOTAL	115	125	126	203	272	245	226	304	168	164	144	100	2192

Table 4(a). Marine turtle strandings reported from TEXAS, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	5	4	10	26	23	3	8	5	9	10	6	2	111
C. mydas	3	45	1	2	3	1	1	3	1	0	1	5	66
D. coriacea	0	0	0	2	2	0	0	1	0	0	0	0	5
E. imbricata	0	0	0	0	0	1	0	13	5	0	1	2	22
L. kempi	0	2	5	13	7	2	2	4	0	10	3	0	48
Unidentified	0	0	0	0	0	1	0	0	0	0	1	1	3
TOTAL	8	51	16	43	35	8	11	26	15	20	12	10	255

Table 4(b). Marine turtle strandings reported from TEXAS, 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Jefferson	1	0	1	3	2	0	0	0	0	3	0	0	10
Galveston	1	1	0	1	10	0	1	4	5	9	4	0	36
Brazoria	0	0	1	2	4	0	0	2	0	0	0	0	9
Matagorda	2	1	2	1	2	1	0	1	0	5	3	0	18
Calhoun	1	0	0	1	0	0	2	2	0	1	1	0	8
Aransas	0	1	1	0	1	2	2	1	0	0	0	0	8
San Patricio	0	0	0	0	0	1	0	0	0	0	0	0	1
Nueces	0	2	6	11	5	1	4	8	6	0	1	2	46
Kleberg	0	0	0	8	2	1	0	7	2	0	2	2	24
Kenedy	0	8	2	8	3	1	1	0	2	1	0	1	27
Willacy	1	6	0	0	3	0	0	0	0	0	0	0	10
Cameron	2	32	3	8	3	1	1	1	0	1	1	5	58
TOTAL	8	51	16	43	35	8	11	26	15	20	12	10	255

Table 5(a). Marine turtle strandings reported from LOUISIANA, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	3	5	4	5	0	0	0	0	17
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	2	0	0	0	0	0	0	2
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	1	2	3	2	2	2	0	0	0	12
Unidentified	0	0	0	0	3	11	3	6	1	0	0	0	24
TOTAL	0	0	0	1	8	21	9	13	3	0	0	0	55

Table 5(b). Marine turtle strandings reported from LOUISIANA, 1 January - 31 December 1989 by parish and month of occurrence. All species are combined. Only parishes from which strandings were reported are included.

PARISH	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
St. Bernard	0	0	0	0	3	20	6	8	0	0	0	0	37
Plaquemines	0	0	0	0	4	0	2	0	0	0	0	0	6
Jefferson	0	0	0	0	0	1	1	0	0	0	0	0	2
St. Mary	0	0	0	0	0	0	0	0	1	0	0	0	1
Cameron	0	0	0	1	1	0	0	5	2	0	0	0	9
TOTAL	0	0	0	1	8	21	9	13	3	0	0	0	55

Table 6(a). Marine turtle strandings reported from MISSISSIPPI, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	1	2	1	0	1	0	0	0	0	5
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	1	3	0	1	0	0	0	0	5
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	1	1	2	1	1	0	0	0	0	6
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	2	4	6	1	3	0	0	0	0	16

Table 6(b). Marine turtle strandings reported from MISSISSIPPI, 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Jackson	0	0	0	1	0	4	1	2	0	0	0	0	8
Harrison	0	0	0	1	4	1	0	1	0	0	0	0	7
Hancock	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	0	0	0	2	4	6	1	3	0	0	0	0	16

Table 7(a). Marine turtle strandings reported from ALABAMA, 1 January - 31 Decemember 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	1	5	1	0	0	0	0	0	7
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	1	3	4	1	1	0	0	0	0	10
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	2	0	1	0	0	0	0	3
Unidentified	0	0	0	0	0	4	4	0	0	0	0	0	8
TOTAL	0	0	0	1	4	15	6	2	0	0	0	0	28

Table 7(b). Marine turtle strandings reported from ALABAMA, 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Baldwin	0	0	0	0	0	9	4	1	0	0	0	0	14
Mobile	0	0	0	1	4	6	2	1	0	0	0	0	14
TOTAL	0	0	0	1	4	15	6	2	0	0	0	0	28

Table 8(a). Marine turtle strandings reported from FLORIDA (GULF), 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	11	29	54	73	35	21	12	12	4	8	5	4	268
C. mydas	5	1	8	3	3	3	5	4	2	5	3	20	62
D. coriacea	0	0	1	0	0	0	0	2	0	0	0	0	3
E. imbricata	1	1	0	0	0	0	0	0	0	0	0	1	3
L. kempi	8	6	1	5	1	1	2	0	2	0	1	2	29
Unidentified	1	1	2	2	1	2	1	1	0	0	0	0	11
TOTAL	26	38	66	83	40	27	20	19	8	13	9	27	376

Table 8(b). Marine turtle strandings reported from FLORIDA (GULF), 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Monroe	7	4	11	9	6	2	7	7	4	5	2	11	75
Collier	0	3	2	6	0	0	2	1	1	0	1	0	16
Lee	10	21	29	22	2	4	4	2	0	0	0	1	95
Charlotte	0	0	3	3	2	0	0	1	0	0	0	0	9
Sarasota	1	5	8	10	1	2	2	2	0	0	2	2	35
Manatee	0	1	2	8	1	0	2	2	0	1	0	0	17
Hillsborough	0	0	1	4	5	1	0	0	1	0	0	0	12
Pinellas	5	3	5	12	13	12	1	2	1	3	4	6	67
Citrus	0	0	0	0	2	1	0	0	0	0	0	0	3
Franklin	0	0	0	2	0	0	0	0	0	1	0	0	3
Gulf	2	1	3	2	3	3	1	0	0	2	0	4	21
Bay	0	0	2	4	2	2	1	0	1	1	0	2	15
Okaloosa	1	0	0	1	0	0	0	0	0	0	0	1	3
Santa Rosa	0	0	0	0	1	0	0	0	0	0	0	0	1
Escambia	0	0	0	0	2	0	0	2	0	0	0	0	4
TOTAL	26	38	66	83	40	27	20	19	8	13	9	27	376

Table 9(a). Marine turtle strandings reported from FLORIDA (ATLANTIC), 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	40	23	19	37	68	32	73	111	48	60	29	10	550
C. mydas	28	5	10	11	18	14	23	17	5	15	11	16	173
D. coriacea	1	2	4	8	2	0	0	2	3	0	4	1	27
E. imbricata	0	0	1	2	0	0	1	1	0	0	0	1	6
L. kempi	4	0	1	0	0	0	1	1	0	4	4	0	15
Unidentified	1	2	4	1	6	1	3	8	3	6	5	1	41
TOTAL	74	32	39	59	94	47	101	140	59	85	53	29	812

Table 9(b). Marine turtle strandings reported from FLORIDA (ATLANTIC), 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Nassau	1	0	1	1	5	3	6	8	5	6	3	1	40
Duval	3	5	0	5	7	4	4	19	9	12	4	1	73
St. John's	6	0	1	8	7	7	6	13	8	20	10	3	89
Flagler	1	1	3	2	5	0	4	2	2	6	1	0	27
Volusia	26	10	10	7	10	1	13	46	12	22	8	4	169
Brevard	16	5	6	10	18	9	24	15	14	1	11	4	133
Indian River	1	3	5	4	10	4	16	14	0	12	3	3	75
St. Lucie	4	4	1	10	11	7	7	4	2	2	1	5	58
Martin	3	2	2	3	5	1	7	6	4	1	3	1	38
Palm Beach	12	1	3	4	9	3	6	4	1	1	5	4	53
Broward	0	0	3	1	6	5	4	6	1	2	2	1	31
Dade	0	0	2	4	1	3	4	2	1	0	2	1	20
Monroe	1	1	2	0	0	0	0	1	0	0	0	1	6
TOTAL	74	32	39	59	94	47	101	140	59	85	53	29	812

Table 10(a). Marine turtle strandings reported from GEORGIA, 1 January - 31 December 1989 by species and month of occurrence

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	1	0	0	4	8	13	17	41	34	11	7	0	136
C. mydas	0	0	0	0	0	0	0	0	2	0	0	0	2
D. coriacea	0	1	0	1	1	0	0	0	0	0	2	0	5
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	2	3	1	5	5	4	1	21
Unidentified	0	0	0	0	0	0	2	1	0	2	0	0	5
TOTAL	1	1	0	5	9	15	22	43	41	18	13	1	169

Table 10(b). Marine turtle strandings reported from GEORGIA, 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Chatham	0	0	0	1	0	3	10	10	2	3	2	0	31
Liberty	0	0	0	0	0	4	3	0	3	1	0	0	11
McIntosh	0	0	0	1	1	6	0	1	2	2	0	0	13
Glynn	1	1	0	2	6	1	4	19	19	5	4	0	62
Camden	0	0	0	1	2	1	5	13	15	7	7	1	52
TOTAL	1	1	0	5	9	15	22	43	41	18	13	1	169

Table 11(a). Marine turtle strandings reported from SOUTH CAROLINA, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	1	0	0	0	4	28	15	15	10	2	1	0	76
C. mydas	0	0	0	0	1	0	0	0	1	0	0	0	2
D. coriacea	0	0	0	1	7	1	0	0	0	0	3	0	12
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	2	2	0	0	0	0	0	4
Unidentified	0	0	0	0	0	0	2	0	0	0	0	0	2
TOTAL	1	0	0	1	12	31	19	15	11	2	4	0	96

Table 11(b). Marine turtle strandings reported from SOUTH CAROLINA, 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Horry	0	0	0	0	0	1	4	1	1	0	0	0	7
Georgetown	0	0	0	0	3	2	0	2	3	0	0	0	10
Charleston	0	0	0	1	9	23	14	8	6	1	3	0	65
Colleton	0	0	0	0	0	1	0	0	0	1	1	0	3
Beaufort	1	0	0	0	0	4	1	4	1	0	0	0	11
TOTAL	1	0	0	1	12	31	19	15	11	2	4	0	96

Table 12(a). Marine turtle strandings reported from NORTH CAROLINA, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	2	2	2	4	28	22	17	17	6	4	15	5	124
C. mydas	0	0	1	0	0	0	0	0	0	0	9	4	14
D. coriacea	0	0	0	0	4	4	0	0	1	0	0	0	9
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	1	0	0	0	1	0	0	0	0	0	0	0	2
Unidentified	2	0	0	0	0	4	1	0	0	0	0	0	7
TOTAL	5	2	3	4	33	30	18	17	7	4	24	9	156

Table 12(b). Marine turtle strandings reported from NORTH CAROLINA, 1 January - 31 December 1989 by county and month of occurrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Currituck	0	0	0	0	0	1	0	0	0	0	2	0	3
Dare	3	2	1	2	6	1	3	2	1	1	10	4	36
Hyde	0	0	0	0	2	1	0	0	0	0	0	0	3
Craven	1	0	0	0	0	0	0	0	0	0	0	0	1
Carteret	0	0	2	1	17	21	12	11	4	0	9	5	82
Onslow	1	0	0	1	0	2	2	1	0	0	2	0	9
Pender	0	0	0	0	2	0	0	0	0	0	0	0	2
New Hanover	0	0	0	0	2	2	0	2	1	2	1	0	10
Brunswick	0	0	0	0	4	1	1	1	1	1	0	0	9
Beaufort	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	5	2	3	4	33	30	18	17	6	4	24	9	156

Table 13(a). Marine turtle strandings reported from VIRGINIA, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	25	37	14	8	12	7	2	6	111
C. mydas	0	0	0	0	0	0	0	0	0	1	1	0	2
D. coriacea	0	0	0	0	1	1	1	0	0	0	0	0	3
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	2	1	0	1	0	0	1	5
Unidentified	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	0	0	26	40	16	9	13	8	3	7	122

Table 13(b). Marine turtle strandings reported from VIRGINIA, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Accomack	0	0	0	0	0	1	0	1	2	0	0	0	4
Northampton	0	0	0	0	12	15	3	2	0	0	0	1	33
Mathews	0	0	0	0	0	1	0	0	0	0	0	0	1
Gloucester	0	0	0	0	3	9	5	0	0	[illegible]	0	0	18
York	0	0	0	0	1	2	1	0	0	2	0	0	6
Hampton	0	0	0	0	3	4	1	0	2	1	0	0	11
Norfolk	0	0	0	0	1	1	4	2	2	2	0	2	14
Virginia Beach	0	0	0	0	6	7	2	4	7	2	3	4	35
TOTAL	0	0	0	0	26	40	16	9	13	8	3	7	122

Table 14(a). Marine turtle strandings reported from MARYLAND, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	0	0	1	0	0	1
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	1	0	0	1

Table 14(b). Marine turtle strandings reported from MARYLAND, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Calvert	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	0	0	0	0	0	0	0	0	0	1	0	0	1

Table 15(a). Marine turtle strandings reported from DELAWARE, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	0	0	0	0	0	0
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	7	0	0	7
TOTAL	0	0	0	0	0	0	0	0	0	7	0	0	7

Table 15(b). Marine turtle strandings reported from DELAWARE, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Sussex	0	0	0	0	0	0	0	0	0	7	0	0	7
TOTAL	0	0	0	0	0	0	0	0	0	7	0	0	7

Table 16(a). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	3	2	4	4	2	0	0	15
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	0	0	2	1	0	0	0	3
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	0	0	0	1	0	0	0	1
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	3	2	6	6	2	0	0	19

Table 16(b). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Atlantic	0	0	0	0	0	0	1	0	0	0	0	0	1
Cape May	0	0	0	0	0	2	1	1	3	1	0	0	8
Monmouth	0	0	0	0	0	0	0	2	3	1	0	0	6
Ocean	0	0	0	0	0	1	0	3	0	0	0	0	4
TOTAL	0	0	0	0	0	3	2	6	6	2	0	0	19

Table 17(a). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	1	1	1	1	1	0	5
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	2	1	0	5	2	0	0	1	11
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	1	0	0	1	0	1	4	5	12
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	3	1	1	7	3	2	5	6	28

Table 17(b). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Kings	0	0	0	0	0	0	0	0	0	1	0	0	1
Nassau	0	0	0	0	1	0	0	2	2	0	0	0	5
Suffolk	0	0	0	0	2	1	1	5	1	1	5	6	22
TOTAL	0	0	0	0	3	1	1	7	3	2	5	6	28

Table 18(a). Marine turtle strandings reported from CONNECTICUT, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	0	1	0	0	0	1
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	1	0	0	0	1

Table 18(b). Marine turtle strandings reported from CONNECTICUT, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Fairfield	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL	0	0	0	0	0	0	0	0	1	0	0	0	1

Table 19(a). Marine turtle strandings reported from RHODE ISLAND, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	1	0	0	0	0	1
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	1	0	1	0	3	1	0	1	0	7
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	0	1	0	4	1	0	1	0	8

Table 19(b). Marine turtle strandings reported from RHODE ISLAND, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Newport	0	0	0	1	0	1	0	1	0	0	1	0	4
Washington	0	0	0	0	0	0	0	3	1	0	0	0	4
TOTAL	0	0	0	1	0	1	0	4	1	0	1	0	8

Table 20(a). Marine turtle strandings reported from MASSACHUSETTS, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	0	0	1	2	1	4
C. mydas	0	0	0	0	0	0	0	0	0	0	1	0	1
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	0	0	0	0	0	0	0	0	1	0	1
L. kempi	0	0	0	1	1	0	0	0	0	0	14	10	26
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	1	0	0	0	0	1	18	11	32

Table 20(b). Marine turtle strandings reported from MASSACHUSETTS, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Barnstable	0	0	0	1	1	0	0	0	0	1	18	10	31
Dukes	0	0	0	0	0	0	0	0	0	0	0	1	1
TOTAL	0	0	0	1	1	0	0	0	0	1	18	11	32

Table 21(a). Marine turtle strandings reported from MAINE, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	0	0	0	0	0	0
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	0	0	0	0	1	0	0	1
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	1	0	0	1

Table 21(b). Marine turtle strandings reported from MAINE, 1 January - 31 December 1989 by county and month of occurrrence. All species are combined. Only counties from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Cumberland	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	0	0	0	0	0	0	0	0	0	1	0	0	1

Table 22. Marine turtle strandings reported from PUERTO RICO, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	0	0	0	0	0	0
C. mydas	0	0	0	0	1	0	0	0	0	0	0	0	1
D. coriacea	0	0	0	0	1	0	0	0	0	0	0	0	1
E. imbricata	0	0	0	0	1	0	0	0	0	0	0	0	1
L. kempi	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	3	0	0	0	0	0	0	0	3

Table 23. Marine turtle strandings reported from VIRGIN ISLANDS, 1 January - 31 December 1989 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	0	0	0	0	0	0	0	0	0
C. mydas	0	1	0	2	0	0	0	0	0	0	2	0	5
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	2	0	0	0	0	0	0	0	0	0	2
L. kempi	0	0	0	0	0	0	0	0	0	0	0	0	0
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	1	2	2	0	0	0	0	0	0	2	0	7

Table 24. Marine turtle strandings reported from GULF REGION, 1 January - 31 December 1989 by zone and month of occurrence.

STATISTICAL ZONE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ZONE 1	5	3	6	5	3	2	3	5	3	2	1	6	44
ZONE 2	0	0	0	0	0	0	1	0	0	0	0	0	1
ZONE 3	0	0	0	0	0	0	2	0	0	0	0	0	2
ZONE 4	10	24	34	34	4	4	6	5	1	0	2	1	125
ZONE 5	5	8	15	30	16	15	5	5	2	4	3	8	116
ZONE 6	2	1	1	1	6	1	0	0	0	0	2	0	14
ZONE 7	0	0	0	2	0	0	0	0	0	1	0	0	3
ZONE 8	2	1	5	6	5	5	2	0	1	3	0	6	36
ZONE 9	1	0	0	1	2	0	0	1	0	0	0	1	6
ZONE 10	0	0	0	0	1	9	4	1	0	0	0	0	15
ZONE 11	0	0	0	3	11	29	11	13	0	0	0	0	67
ZONE 12	0	0	0	0	4	3	0	0	0	0	0	0	7
ZONE 13	0	0	0	0	0	1	1	0	0	0	0	0	2
ZONE 14	0	0	0	0	0	0	0	0	0	0	0	0	0
ZONE 15	0	0	0	0	0	0	0	0	1	0	0	0	1
ZONE 16	0	0	0	0	0	0	0	0	0	0	0	0	0
ZONE 17	0	0	0	1	1	0	0	5	2	1	0	0	10
ZONE 18	2	1	1	4	7	0	1	4	5	11	4	0	40
ZONE 19	3	2	3	4	11	3	4	6	0	6	4	0	46
ZONE 20	0	10	8	21	7	4	5	15	9	0	3	5	87
ZONE 21	3	38	4	14	10	1	1	1	1	2	1	5	81
ZONE 24	1	1	4	4	3	0	1	2	1	3	1	5	26
ZONE 25	0	0	1	0	0	0	0	0	0	0	0	0	1
TOTAL	34	89	82	130	91	77	47	63	26	33	21	37	730

Table 25. Marine turtle strandings reported from SOUTHEAST REGION, 1 January - 31 December 1989 by zone and month of occurrence.

STATISTICAL ZONE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ZONE 24	0	0	0	0	0	0	0	0	0	0	0	0	0
ZONE 25	1	1	4	4	1	3	5	3	1	0	2	3	28
ZONE 26	12	1	6	5	16	8	9	10	3	3	7	4	84
ZONE 27	10	11	11	20	25	12	33	24	7	15	9	10	187
ZONE 28	23	6	4	9	21	9	25	23	12	2	11	4	149
ZONE 29	22	8	13	9	12	8	14	48	18	34	9	4	199
ZONE 30	6	5	1	13	21	8	20	45	33	39	22	5	218
ZONE 31	1	1	0	3	7	13	14	26	26	9	6	0	106
ZONE 32	1	0	0	2	5	29	18	16	4	3	4	0	82
ZONE 33	0	0	0	0	11	4	5	4	8	1	0	0	33
ZONE 34	2	0	2	2	21	22	13	13	4	2	10	4	95
ZONE 35	3	2	1	2	8	6	3	3	2	1	11	5	47
ZONE 36	0	0	0	0	7	9	7	6	9	4	6	6	54
TOTAL	81	35	42	69	155	131	166	221	127	113	97	44	1282

Table 26. Marine turtle strandings reported from NORTHEAST REGION, 1 January - 31 December 1989 by zone and month of occurrence.

STATISTICAL ZONE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ZONE 37	0	0	0	0	19	32	10	3	2	4	0	1	71
ZONE 38	0	0	0	0	0	2	0	0	3	8	0	0	13
ZONE 39	0	0	0	0	0	1	2	3	2	1	0	0	9
ZONE 40	0	0	0	0	3	0	0	9	5	2	1	1	21
ZONE 41	0	0	0	1	1	2	1	5	3	2	19	14	48
ZONE 42	0	0	0	1	0	0	0	0	0	0	4	2	7
ZONE 43	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	0	0	0	2	23	37	13	20	15	18	24	18	170

Table 27. Marine turtle strandings by species and month of occurence for Zones 4 and 5. Sampling was conducted systematically throughout 1989.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	7	28	46	57	19	17	9	10	1	4	4	2	204
C. mydas	1	0	0	1	0	1	0	0	0	0	1	5	9
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	1	1
L. kempi	7	4	1	4	1	1	2	0	2	0	0	1	23
Unidentified	0	0	2	2	0	0	0	0	0	0	0	0	4
TOTAL	15	32	49	64	20	19	11	10	3	4	5	9	241

Table 28. Marine turtle strandings by species and month of occurence for Zones 17 thru 21. Sampling was conducted systematically throughout 1989.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	5	4	10	26	23	3	8	7	9	10	6	2	113
C. mydas	3	45	1	2	3	1	1	3	1	0	1	5	66
D. coriacea	0	0	0	2	2	0	0	1	0	0	0	0	5
E. imbricata	0	0	0	0	0	1	0	13	5	0	1	2	22
L. kempi	0	2	5	14	8	2	2	6	1	10	3	0	53
Unidentified	0	0	0	0	0	1	0	1	1	0	1	1	5
TOTAL	8	51	16	44	36	8	11	31	17	20	12	10	264

Table 29. Marine turtle strandings by species and month of occurence for Zones 28 thru 30. Sampling was conducted systematically throughout 1989.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	36	16	9	20	46	22	55	105	58	62	28	6	463
C. mydas	10	0	2	2	0	3	2	2	1	1	0	5	28
D. coriacea	1	2	3	8	3	0	0	1	0	0	5	1	24
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	3	0	1	0	0	0	1	1	1	6	8	1	22
Unidentified	1	1	3	1	5	0	1	7	3	6	1	0	29
TOTAL	51	19	18	31	54	25	59	116	63	75	42	13	566

Table 30. Marine turtle strandings by species and month of occurence for Zone 31. Sampling was conducted systematically throughout 1989.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	1	0	0	3	7	11	9	26	20	5	5	0	87
C. mydas	0	0	0	0	0	0	0	0	2	0	0	0	2
D. coriacea	0	1	0	0	0	0	0	0	0	0	1	0	2
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	2	3	0	4	2	0	0	11
Unidentified	0	0	0	0	0	0	2	0	0	2	0	0	4
TOTAL	1	1	0	3	7	13	14	26	26	9	6	0	106

Table 31. Marine turtle strandings by species and month of occurence for Zone 32. Sampling was conducted systematically throughout 1989.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	1	0	0	0	2	26	15	16	4	2	1	0	67
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	2	3	1	0	0	0	0	3	0	9
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	2	2	0	0	1	0	0	5
Unidentified	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL	1	0	0	2	5	29	18	16	4	3	4	0	82

Table 32. Strandings of headstarted turtles reported through the STSSN, 1 January - 31 December 1989.

Species: *Lepidochelys kempi*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Texas	0	0	0	0	3	1	0	0	0	1	0	1	6
Louisiana	0	0	0	0	0	0	0	1	0	0	0	0	1
Alabama	0	0	0	0	0	1	0	0	0	0	0	0	1
Florida (Gulf)	0	0	0	0	1	2	2	0	1	0	0	2	8
Georgia	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	0	0	0	0	4	4	2	1	1	1	1	3	17

Species: *Chelonia mydas*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Florida (Gulf)	1	0	0	0	0	0	0	0	0	0	0	1	2
Florida (Atlantic)	0	0	0	0	0	1	0	0	0	0	0	2	3
Virginia	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL	1	0	0	0	0	1	0	0	1	0	0	3	6

Species: *Caretta caretta*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Texas	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL	0	1	0	0	0	0	0	0	0	0	0	0	1

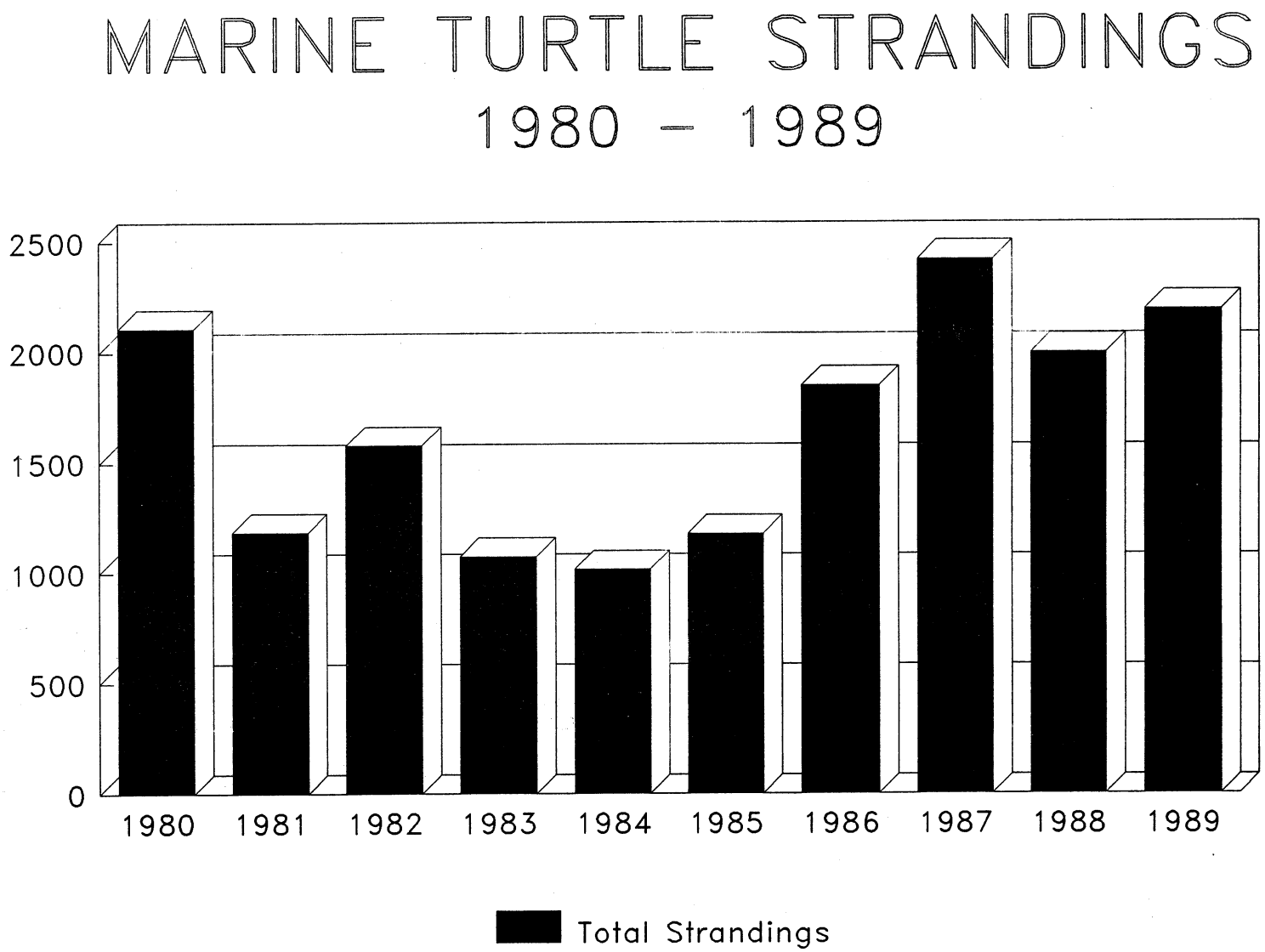


Figure 1. Marine turtle strandings reported annually from the U.S. Atlantic and Gulf of Mexico, 1980 – 1989. All species are combined.

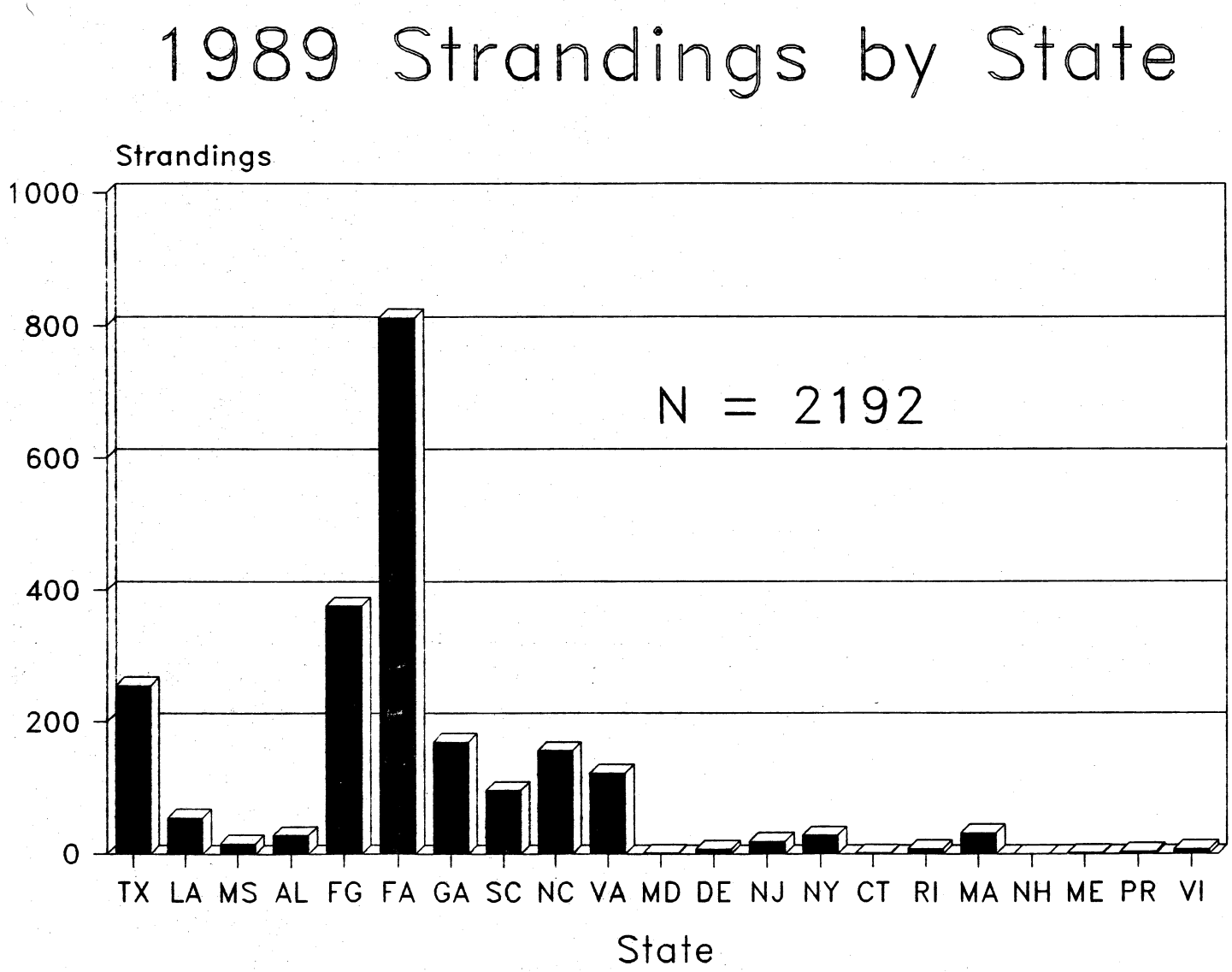


Figure 2. Marine turtle strandings reported from the U.S. Atlantic and Gulf of Mexico, 1989. FG = Florida(Gulf), FA = Florida(Atlantic).

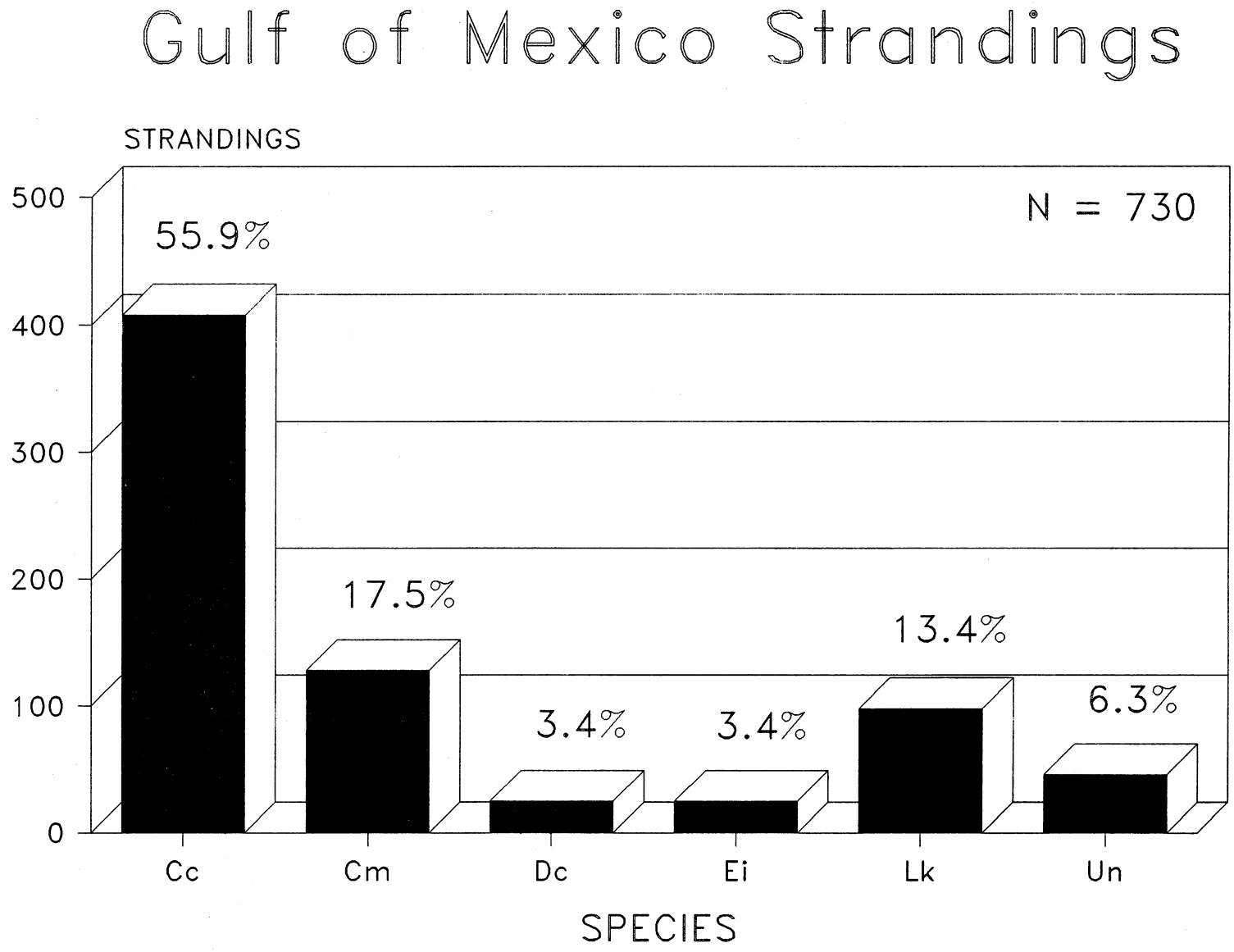


Figure 3. Species composition of stranded marine turtles reported from the Gulf of Mexico, 1989.

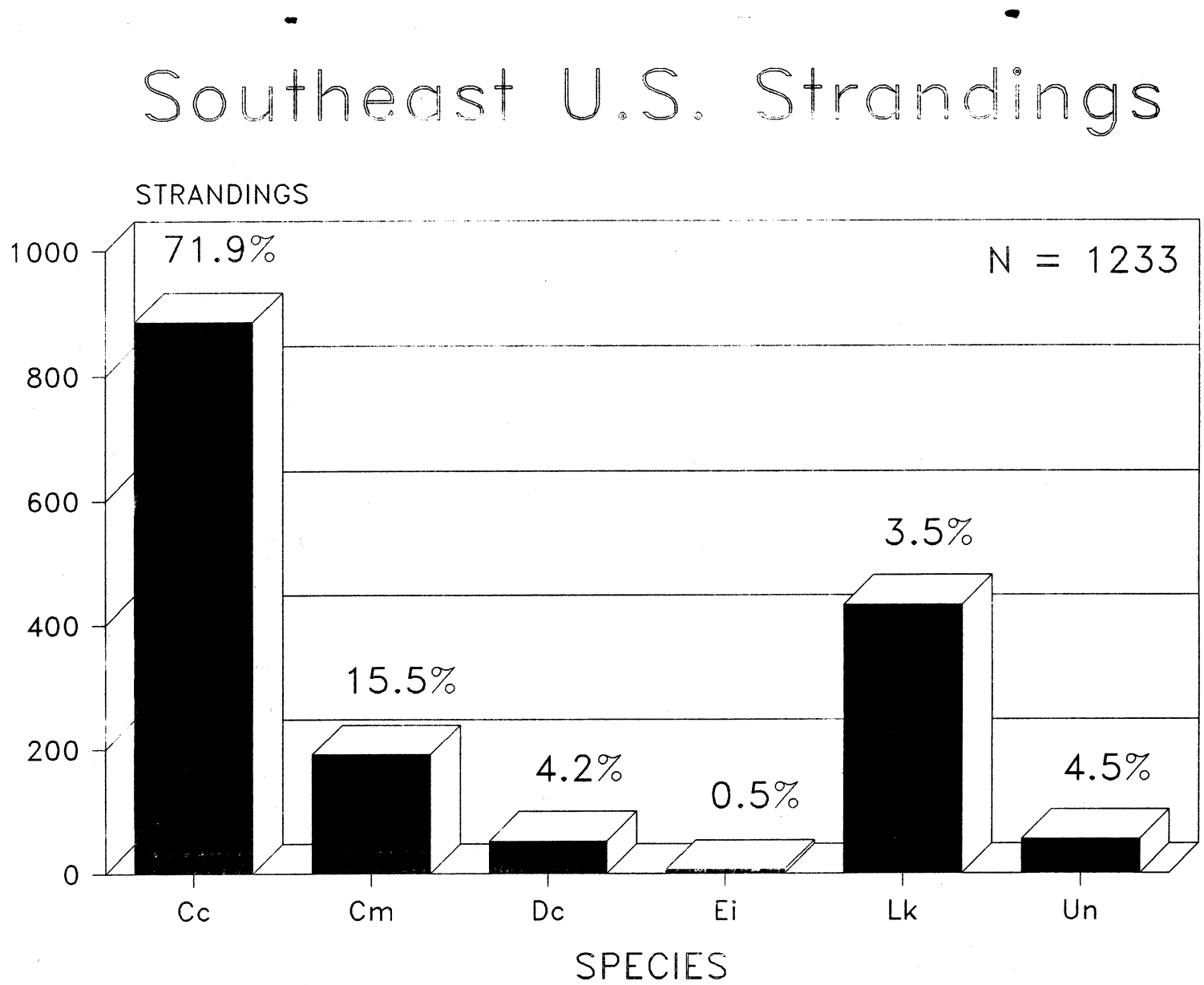


Figure 4. Species composition of stranded marine turtles reported from the southeast U.S. Atlantic, 1989.

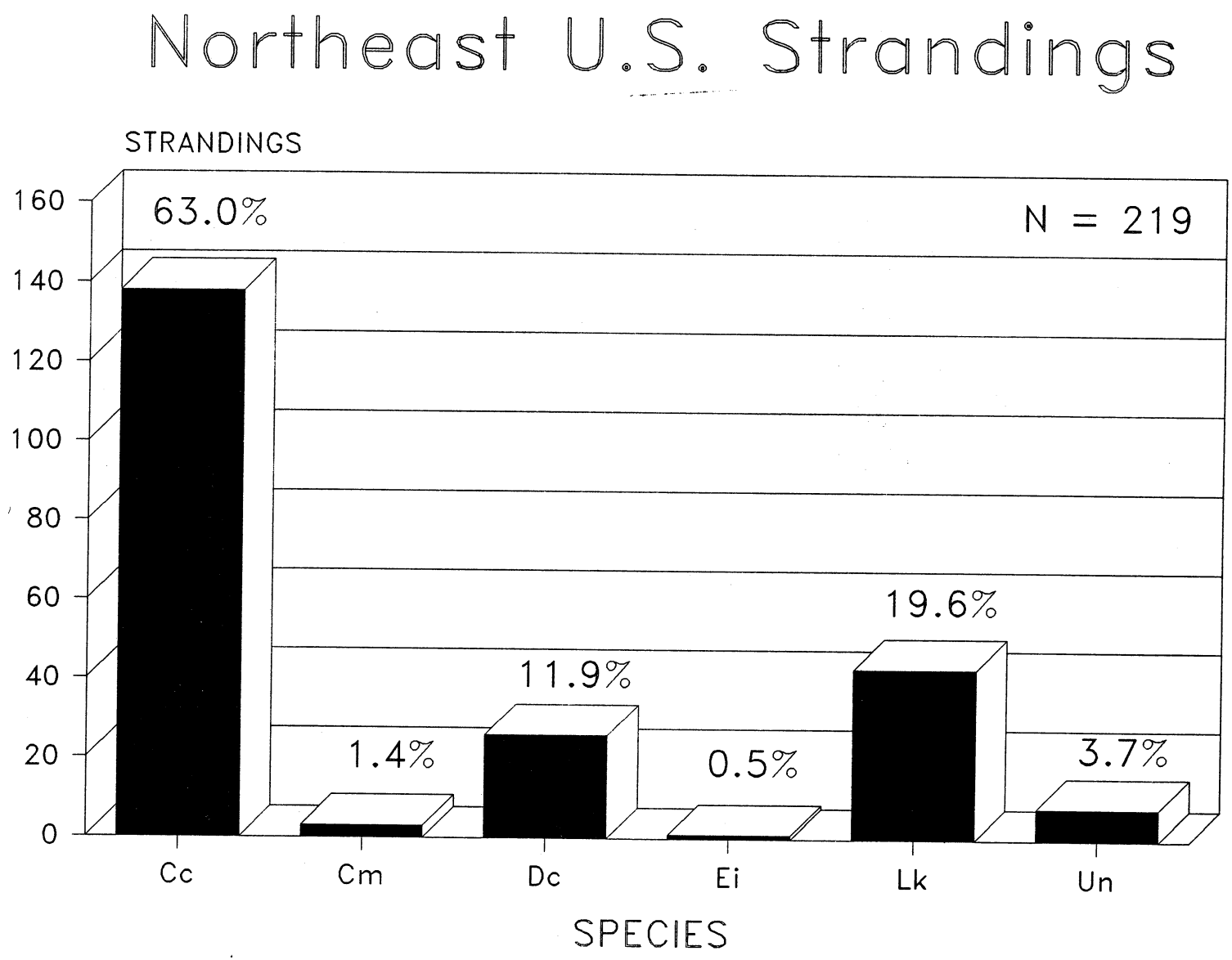
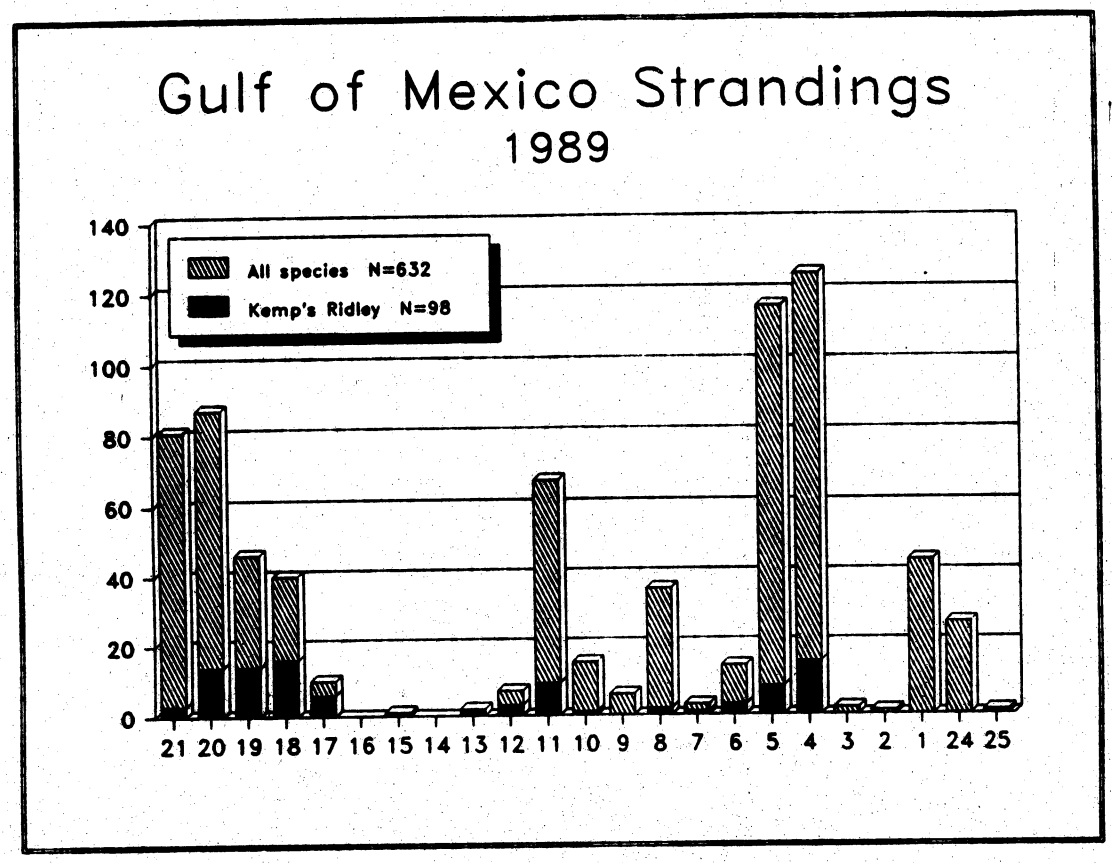


Figure 5. Species composition of stranded marine turtles reported from the northeast U.S. Atlantic, 1989.



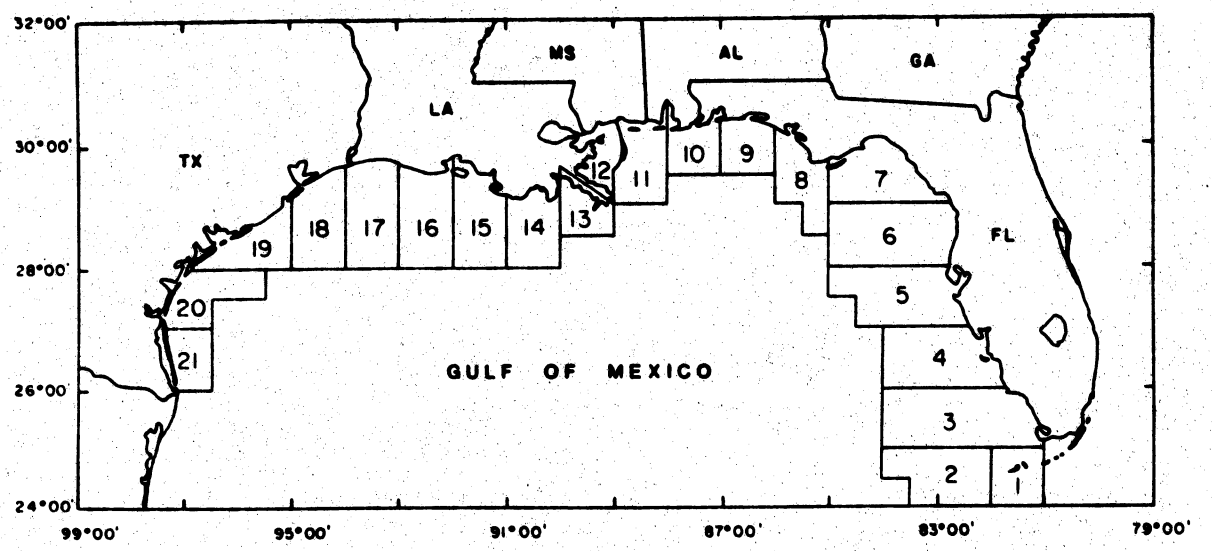
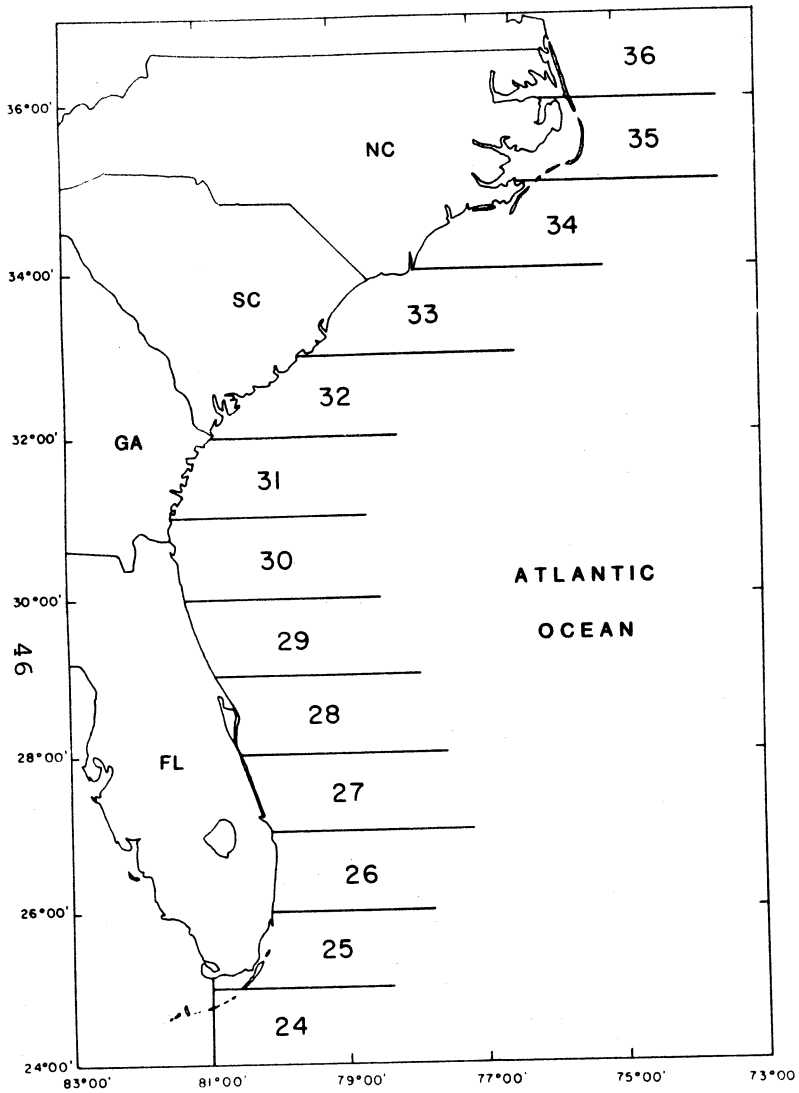


Figure 6. Marine turtle strandings reported from the Gulf of Mexico by statistical zone, 1989.



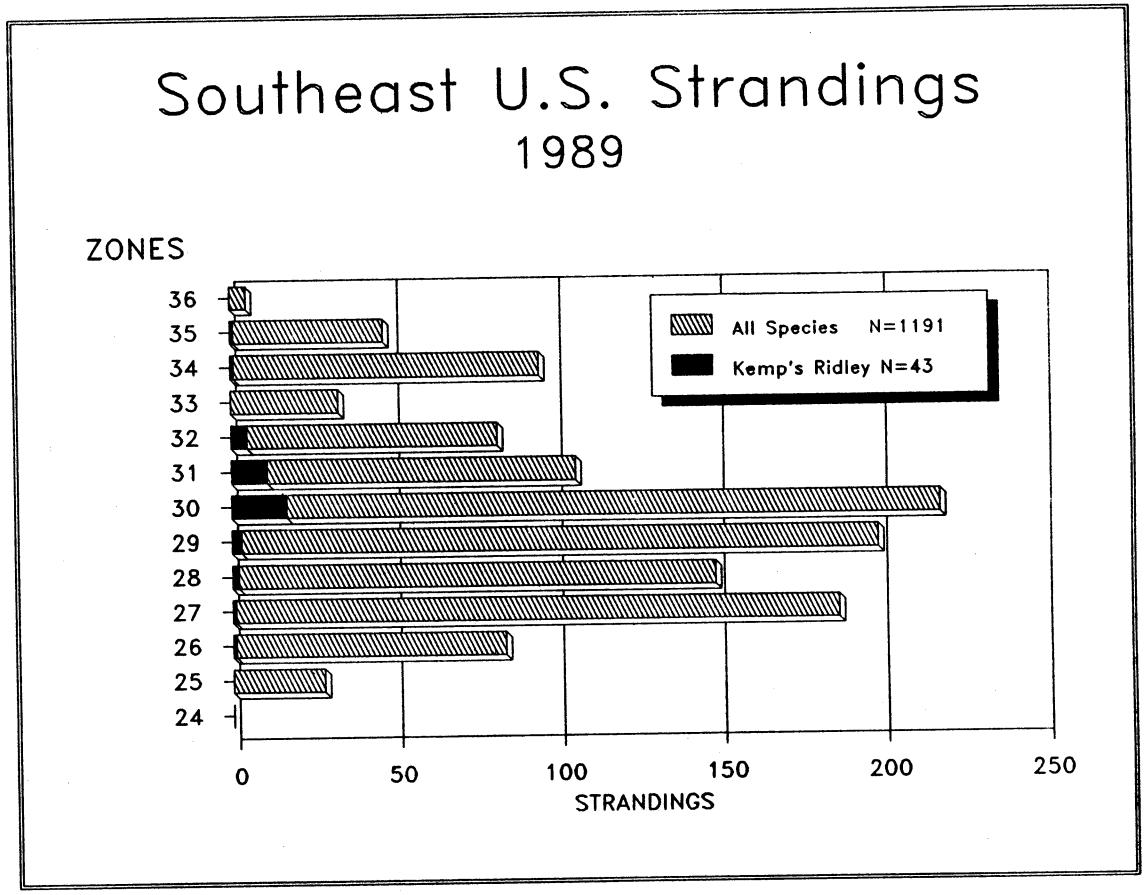
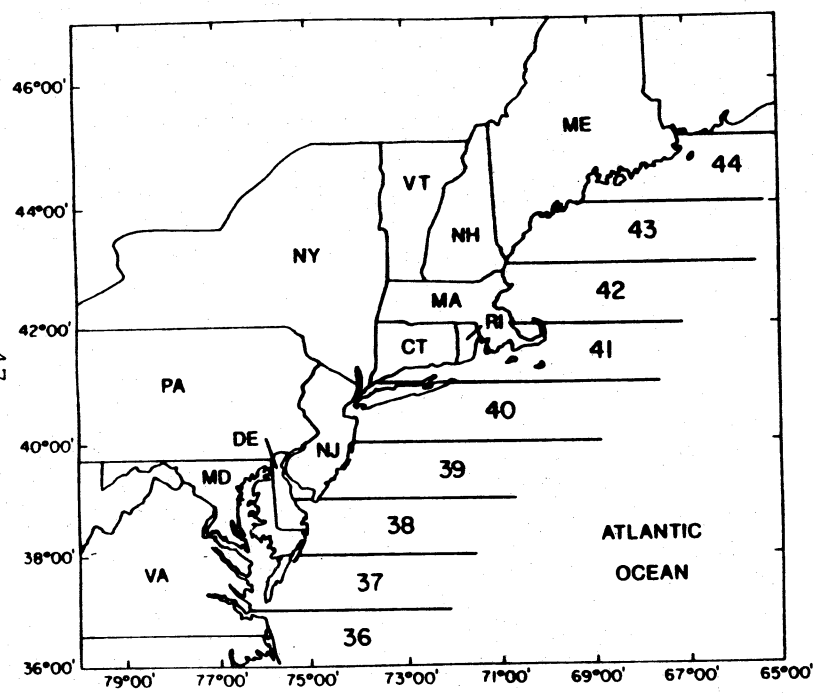


Figure 7. Marine turtle strandings reported from the southeast U.S. Atlantic by statistical zone, 1989.



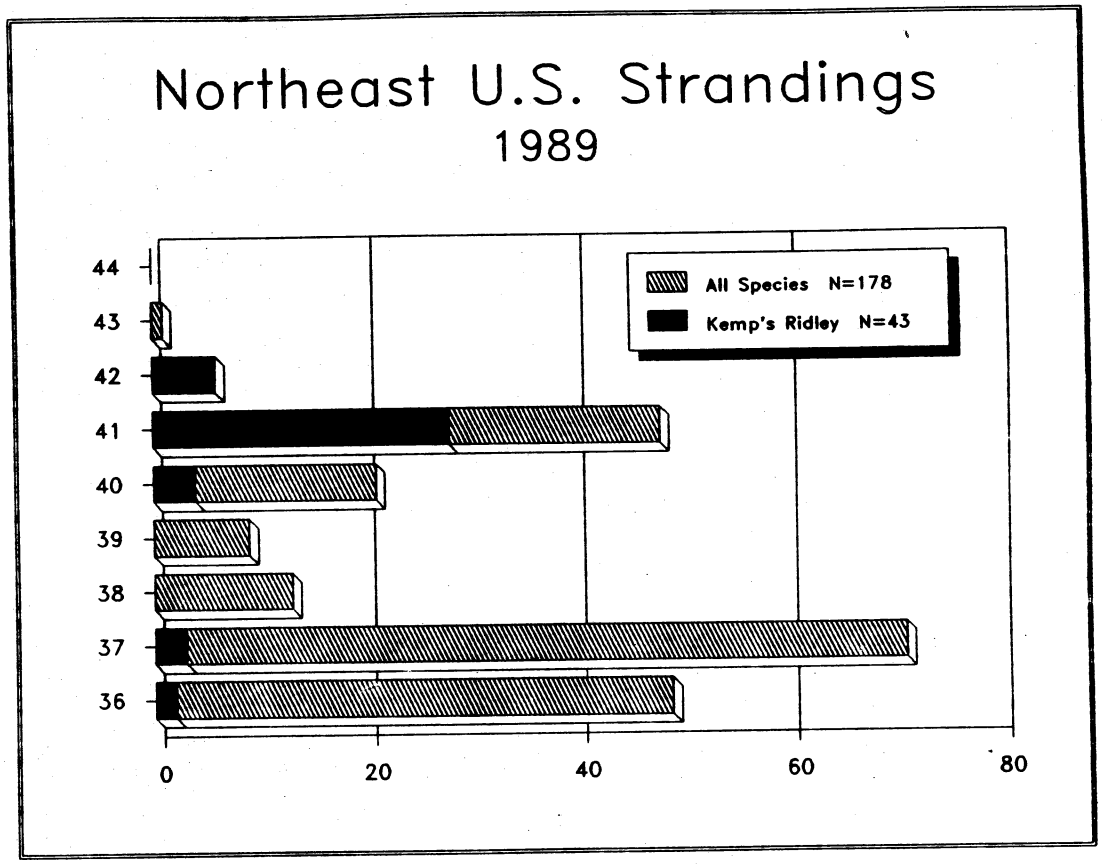


Figure 8. Marine turtle strandings reported from the northeast U.S. Atlantic by statistical zone, 1989.

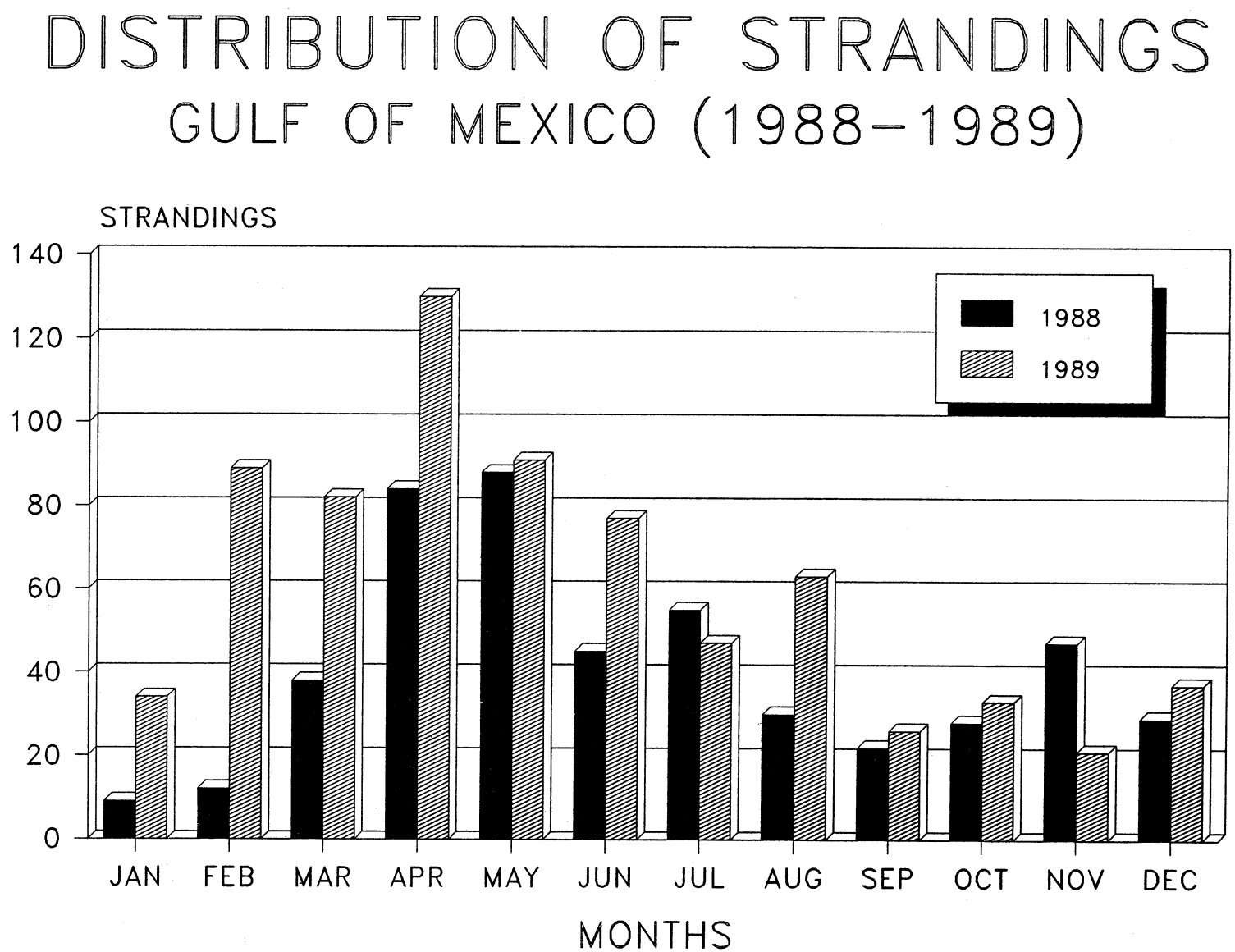


Figure 9. Monthly distribution of marine turtle strandings reported from the Gulf of Mexico, 1988 and 1989. All species are combined.

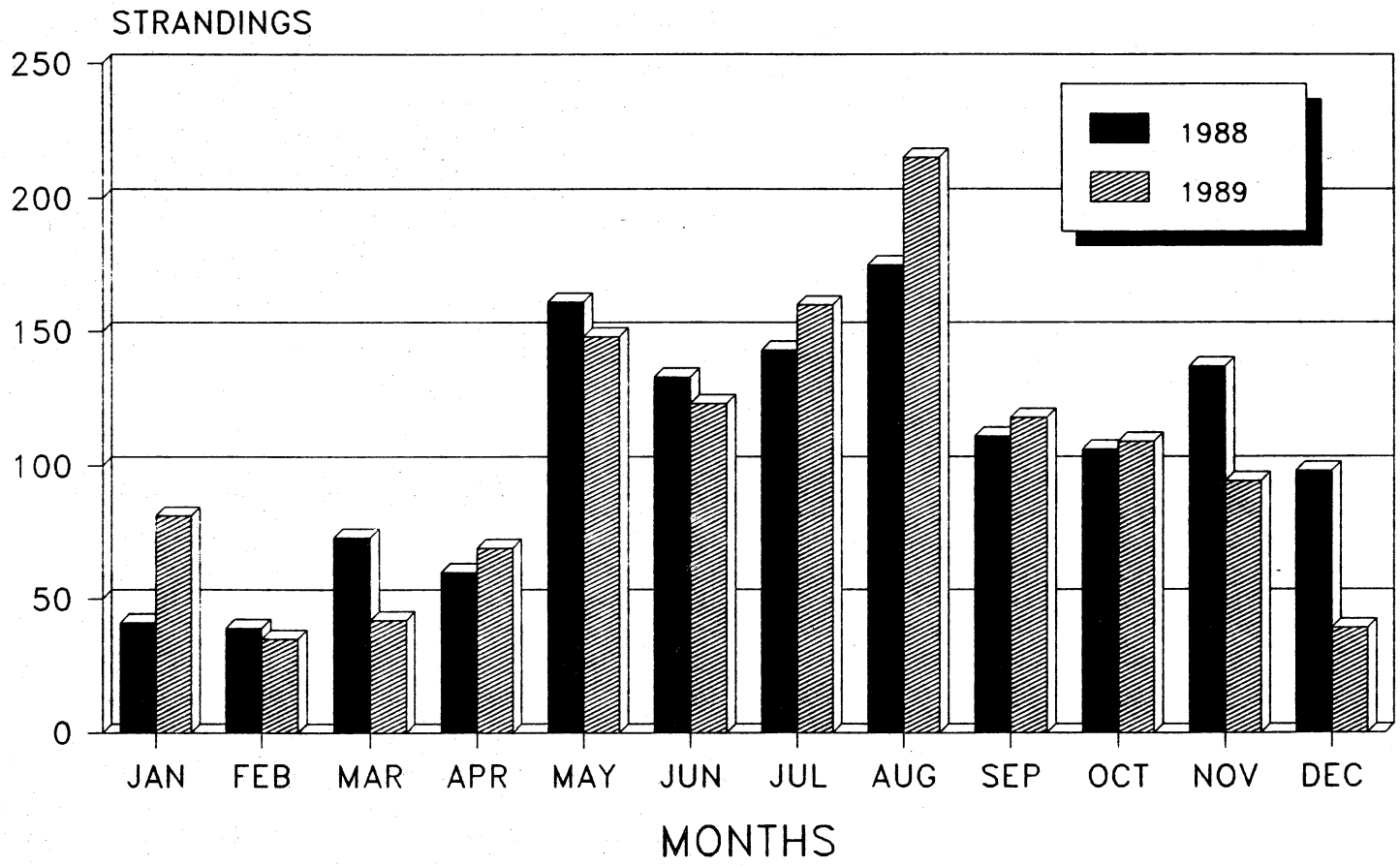


Figure 10. Monthly distribution of marine turtle strandings reported from the southeast U.S. Atlantic, 1988 and 1989. All species are combined.

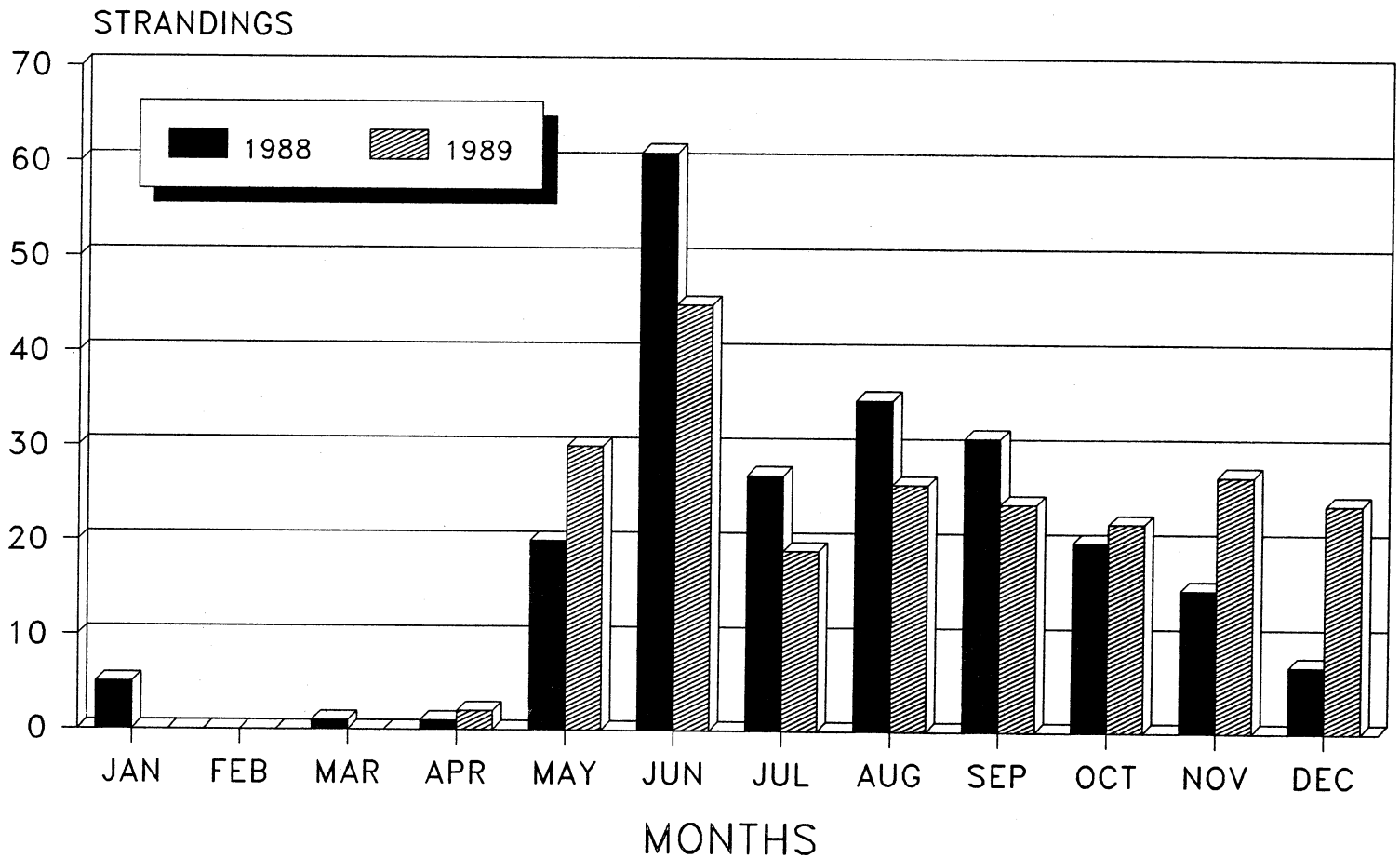


Figure 11. Monthly distribution of marine turtle strandings reported from the northeast U.S. Atlantic, 1988 and 1989. All species are combined.