1990 Annual Report of the Sea Turtle Stranding and Salvage Network: Atlantic and Gulf Coasts of the United States

January - December 1990

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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 1990. 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 1990 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 2536 stranded marine turtles were reported during 1990. Of these, 2515 were "wild" strandings and the remaining 21 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 30, 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).

Fifteen 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, Rhode Island and Massachusetts. No stranding reports were received from Connecticut, New Hampshire or Maine. 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 1990 stranding total of 2515 is a 14.2% increase over the 1989 stranding total. The 1990 total is the highest

annual total ever reported through the network, and accounts for 13.2% of all reported strandings over the eleven year period 1980-1990.

STATE AND REGIONAL DISTRIBUTION

Reported strandings during 1990 are summarized by state in Table 1 and Figure 2. Florida reported the highest number of strandings during 1990, accounting for 44% of the total (10% Florida-Gulf, 34% Florida-Atlantic). Texas accounted for 14% of the total reported strandings, followed by North Carolina and Georgia accounting for 11% and 10%, respectively.

Regionally, 26.5% of total strandings were reported from the Gulf of Mexico (TX, LA, MS, AL, FL-Gulf), 60.2% from the southeast U.S. Atlantic (FL-Atlantic, GA, SC, NC), 12.2% from the northeast U.S. Atlantic (VA, MD, DE, NJ, NY, CT, RI, MA, NH, ME), and 1.0% from the U.S. Caribbean (PR, USVI). Stranding records are summarized on a detailed state by state basis in Tables 4-21. These tables summarize strandings by species and month (all counties combined) and by county and month (all species combined).

Network-wide, 79% of all reports were classified as offshore strandings and 21% 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 1990 (excluding the Caribbean) is as follows:

	GULF	SOUTHEAST U.S.	NORTHEAST U.S.
INSHORE	173 (25.9%)	140 (9.2%)	191 (62.0%)
OFFSHORE	494 (74.1%)	1374 (90.8%)	117 (38.0%)

SPECIES COMPOSITION

Throughout the network, loggerheads (*Caretta caretta*) were the most frequently stranded species making up 63.5% (1598) of the total. Kemp's ridleys (*Lepidochelys kempi*) were the second most frequently reported species at 13.5% (340); green turtle (*Chelonia mydas*) strandings comprised 13.1% (329) of the total; leatherbacks (*Dermochelys coriacea*) accounted for 4.1% (102) of all reports; and hawksbills (*Eretmochelys imbricata*) were reported least frequently making up 2.4% (61) of the total. Turtles not identified to species accounted for 3.4% (85) 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 46% (309), 71% (1078), and 69% (211) of the region totals for the Gulf, southeast U.S. Atlantic, and northeast U.S. Atlantic, respectively. In the Gulf of Mexico, Kemp's ridleys were the second most frequently stranded species comprising 28% (185) of the total, followed by green turtles comprising 14% (93), hawksbills 5% (32), and leatherbacks 2% (12). In the southeast U.S. Atlantic, green turtles were the second most frequently stranded species accounting for 15% (226) of all reports, with Kemp's ridleys accounting for 6% (94), leatherbacks 4% (57) and hawksbills <1% (8). In the northeast U.S. Atlantic, Kemp's ridley strandings accounted for 20% (61) of the region total, with leatherbacks comprising 10% (26) and green turtles accounting for 2% (5). Hawksbills stranded most frequently in the U.S. Caribbean accounting for 81% (21) of all reports with green turtles accounting for the remaining 19% (5).

As compared to 1989, strandings of Kemp's ridleys increased 85% for all regions combined. This increase occurred in all regions except the Caribbean, with strandings in the Gulf of Mexico almost doubling from 98 to 185, in the southeast U.S. Atlantic more than doubling from 42 to 94, and in the northeast U.S. Atlantic increasing from 44 to 61.

Strandings of hawksbills in 1990 increased 69% over 1989 totals for all regions combined. This increase occurred primarily in the U.S. Caribbean, with strandings increasing from 4 to 21. Hawksbill strandings also increased in the Gulf of Mexico and southeast U.S. Atlantic, going from 25 to 35 and 6 to 8, respectively.

Strandings of loggerheads increased 11% from 1989 to 1990 for all regions combined. This increase occurred only in the U.S. Atlantic, with strandings in the southeast and northeast regions increasing from 893 to 1078 and 138 to 211, respectively. Loggerhead strandings in the Gulf of Mexico decreased 32%, from 408 in 1989 to 309 in 1990.

Network-wide, 1990 strandings of green turtles remained consistent with 1989 levels. Strandings of green turtles in the southeast U.S. increased from 191 to 226, while decreasing from 128 to 93 in the Gulf of Mexico. Strandings of green turtles in other regions were similar to 1989 levels.

Leatherback strandings also remained consistent with 1989 levels overall. In the Gulf of Mexico, strandings decreased from 25 to 14, while increasing slightly in the U.S. Atlantic, going from 53 to 57 in the southeast region and 25 to 31 in the northeast region. The U.S. Caribbean, which reported two leatherback strandings during 1989, did not have any in 1990.

11 in 1990; this increase occurred primarily in December and was most likely a result of heavy flounder trawler activity in the area at the time. Strandings of Kemp's ridleys in all other zones remained relatively consistent with 1989 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 56% 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 31% of the total northeast U.S. strandings; over half of these strandings were the result of cold-stunning as water temperatures dropped in late fall and early winter. Ninety-two percent (92%) of all northeast U.S. Kemp's ridley strandings were reported from zones 40, 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. During 1990, sampling was conducted either aerially or on the ground within zones 4 and 5 by the Florida Department of Natural Resources. Ground sampling within zones 17 through 21 was coordinated by the NMFS Southeast Fisheries Science Center, Galveston Laboratory. Dr. Lew Ehrhart, University of Central Florida, sampled 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 aerial surveys 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 <u>index</u> of total mortality. The peak in total strandings in the western Gulf of Mexico (zones 17-21) occurred in July/August. Over half of the turtles stranding during these two months were Kemp's ridleys (Table 26). In the eastern Gulf of Mexico (zones 4 and 5) strandings peaked during the period April - June with over half of the strandings in these zones occurring during these three months (Table 25). June was the peak stranding month for zones 28-30, accounting for 19% of all strandings in these zones (Table 27). It should be noted that August, the peak stranding month during 1989, had one of the lowest stranding totals during 1990. In zone 31, almost half the total strandings for the year occurred in September/October with a secondary peak during June/July (Table 28). In South Carolina (zone 32) peaks in total strandings occurred during June and September/October (Table 29). This

contrasts with 1989 when strandings in zone 32 were highest during the summer months of June - August.

TEMPORAL DISTRIBUTION OF STRANDINGS

Table 2 summarizes 1990 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 1989 and 1990 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 in July and a secondary peak in April. Strandings in the Gulf of Mexico were generally lower than 1989 levels during the first half of the year and higher than 1989 levels during the second half.

In the southeast U.S. Atlantic (Figure 10), the peak stranding month was June. Strandings in 1990 were higher than in 1989 in all months except January, July, August, and November; August was the only month which showed a major decrease in strandings, with less than a third of the 1989 total reported during 1990. Strandings were more than twice 1989 totals during March, April and December.

In the northeast U.S. Atlantic (Figure 11), June was the peak stranding month. Strandings during May and June 1990 were much higher than during the same time period in 1989. In all other months, stranding frequencies followed the same general trend by month in 1990 as they did in 1989.

CONDITION OF STRANDED TURTLES

Of 2515 stranded turtles, 91.4% were dead, 7.7% were alive, and the conditions of the remaining 0.9% were not recorded. Of the 193 live turtles, 32% were released, 48% subsequently died, and the fates of the remaining 40 turtles (21%) are unknown. A total of 219 turtles (8.7%) were reported as necropsied. The conditions of the 2300 turtles stranded <u>dead</u> were reported as follows:

Fresh Dead	497 (21.6%)
Moderately Decomposed	953 (41.4%)
Severely Decomposed	710 (30.9%)
Dried Carcass	87 (3.8%)
Skeleton, Bones Only	53 (2.3%)

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; 1989 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.

	1989	1990
Boat Related Injuries (Prop or Collision)	8.2%	8.7%
Carapace Damage (Unknown Cause)	9.8%	10.4%
Plastron Damage (Unknown Cause)	1.1%	1.2%
Skull Injuries	2.9%	2.3%
Skull Missing	3.5%	1.8%
Skull & Flipper(s) Combination Missing	7.2%	7.8%
Flipper(s) Missing (Unknown Cause)	6.3%	6.7%
Flipper(s) Missing (Man Induced)	0.3%	0.1%
Partial Flipper Damage (Unknown Cause)	7.8%	8.0%
Bullet Wounds	0.7%	0.5%
Apparent Shark Wounds	1.9%	2.8%
External Tumors	1.9%	2.7%
Apparent Deliberate Mutilation	2.7%	1.6%
Tar or Oil Impact	0.2%	0.6%
Cold Stun Related	5.3%	2.9%
Entangled in Fishing Line	1.2%	1.0%
Entangled in Fishing Net	0.2%	0.4%
Entangled in Non-Fishing Gear Materials	0.3%	0.6%
Rope(s) Tied to Flippers, Neck or Body	0.4%	0.2%
Fishing Line Protruding From Mouth or Cloaca	0.3%	0.2%
Fishing Hook in Mouth	0.3%	0.2%
Plastic Ingestion (Non-Fishing Gear)	2.1%*	2.3%*
Fishing Hook in Digestive Tract	0.0%*	1.8%*
Fishing Line in Digestive Tract	0.0%*	1.4%*

*Rates of occurrence of anomalies observable <u>only</u> upon necropsy are expressed as a percentage of turtles necropsied (1989, N=146; 1990, N=219).

ACKNOWLEDGEMENTS

Special thanks go out to the state coordinators (listed on the following pages) and network participants who documented marine turtle strandings during calendar year 1990. It is through the hard work and dedication of these people that the STSSN efficiently functions. Thanks also to Anthony Martinez and Brenda Smith, both of the NMFS Miami Lab, for providing valuable assistance in the preparation of this report.

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(May 1992)

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Table 1. Marine turtle strandings reported from 1 January - 31 December 1990 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	136	26	4	28	150	11	355
Louisiana	12	2	4	0	17	4	39
Mississippi	16	0	1	0	5	1	23
Alabama	3	0	0	0	0	0	3
Florida (Gulf)	142	65	5	4	13	18	247
Florida (Atlantic)	569	206	17	7	29	35	863
Georgia	192	4	12	1	44	2	255
South Carolina	91	0	17	0	6	3	117
North Carolina	226	16	11	0	15	11	279
Virginia	162	0	6	0	5	0	173
Maryland	6	0	0	0	0	0	6
Delaware	1	0	0	0	0	0	1
New Jersey	27	1	9	0	0	0	37
New York	11	2	9	0	13	0	35
Rhode Island	0	0	2	0	0	0	2
Massachusetts	4	2	5	0	43	0	54
Puerto Rico	0	3	0	19	0	0	22
U.S. Virgin Islands	0	2	0	2	0	0	4
TOTAL	1598	329	102	61	340	85	2515

*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 1990 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	16	16	20	45	15	12	79	52	24	20	29	27	355
Louisiana	1	0	2	2	5	7	5	6	8	2	0	1	39
Mississippi	0	1	1	1	3	8	2	1	2	1	2	1	23
Alabama	0	0	0	0	2	1	0	0	0	0	0	0	3
Florida (Gulf)	21	16	16	43	26	26	20	16	15	11	16	21	247
Florida (Atl)	48	68	126	88	121	126	67	39	45	46	46	43	863
Georgia	0	0	5	9	10	50	45	15	50	49	17	5	255
South Carolina	1	0	0	8	7	19	18	8	24	21	10	1	117
North Carolina	15	3	3	35	45	38	22	9	16	10	20	63	279
Virginia	3	0	1	1	48	94	13	4	4	3	2	0	173
Maryland	0	0	0	0	1	4	0	0	0	1	0	0	6
Delaware	0	0	0	0	0	0	0	1	0	0	0	0	1
New Jersey	0	0	0	0	0	2	8	9	9	6	3	0	37
New York	0	0	0	0	0	0	2	2	5	12	8	6	35

(continued)

Table 17(a). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1990 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	2	4	3	1	0	11
C. mydas	0	0	0	0	0	0	0	0	0	0	1	1	2
D. coriacea	0	0	0	0	0	0	1	0	0	5	2	1	9
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	4	4	4	13
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	2	2	5	12	8	6	35

Table 17(b). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1990 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
Suffolk	0	0	0	0	0	0	1	1	4	8	8	5	27
Nassau	0	0	0	0	0	0	0	0	0	3	0	1	4
Queens	0	0	0	0	0	0	1	0	0	1	0	0	2
Richmond	0	0	0	0	0	0	0	1	1	0	0	0	2
TOTAL	0	0	0	0	0	0	2	2	5	12	8	6	35

Table 16(a). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1990 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	2	7	8	7	3	0	0	27
C. mydas	0	0	0	0	0	0	0	0	0	0	1	0	1
D. coriacea	0	0	0	0	0	0	1	1	2	3	2	0	9
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	2	8	9	9	6	3	0	37

Table 16(b). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1990 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
Monmouth	0	0	0	0	0	0	3	5	2	1	0	0	11
Ocean	0	0	0	0	0	1	0	1	5	3	3	0	13
Atlantic	0	0	0	0	0	0	1	0	1	1	0	0	3
Cape May	0	0	0	0	0	0	4	2	1	1	0	0	8
Cumberland	0	0	0	0	0	1	0	0	0	0	0	0	1
Salem	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	0	0	0	2	8	9	9	6	3	0	37

Table 1. Marine turtle strandings reported from 1 January - 31 December 1990 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	136	26	4	28	150	11	355
Louisiana	12	2	4	0	17	4	39
Mississippi	16	0	1	0	5	1	23
Alabama	3	0	0	0	0	0	3
Florida (Gulf)	142	65	5	4	13	18	247
Florida (Atlantic)	569	206	17	7	29	35	863
Georgia	192	4	12	1	44	2	255
South Carolina	91	0	17	0	6	3	117
North Carolina	226	16	11	0	15	11	279
Virginia	162	0	6	0	5	0	173
Maryland	6	0	0	0	0	0	6
Delaware	1	0	0	0	0	0	1
New Jersey	27	1	9	0	0	0	37
New York	11	2	9	0	13	0	35
Rhode Island	0	0	2	0	0	0	2
Massachusetts	4	2	5	0	43	0	54
Puerto Rico	0	3	0	19	0	0	22
U.S. Virgin Islands	0	2	0	2	0	0	4
TOTAL	1598	329	102	61	340	85	2515

*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 1990 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	16	16	20	45	15	12	79	52	24	20	29	27	355
Louisiana	1	0	2	2	5	7	5	6	8	2	0	1	39
Mississippi	0	1	1	1	3	8	2	1	2	1	2	1	23
Alabama	0	0	0	0	2	1	0	0	0	0	0	0	3
Florida (Gulf)	21	16	16	43	26	26	20	16	15	11	16	21	247
Florida (Atl)	48	68	126	88	121	126	67	39	45	46	46	43	863
Georgia	0	0	5	9	10	50	45	15	50	49	17	5	255
South Carolina	1	0	0	8	7	19	18	8	24	21	10	1	117
North Carolina	15	3	3	35	45	38	22	9	16	10	20	63	279
Virginia	3	0	1	1	48	94	13	4	4	3	2	0	173
Maryland	0	0	0	0	1	4	0	0	0	1	0	0	6
Delaware	0	0	0	0	0	0	0	1	0	0	0	0	1
New Jersey	0	0	0	0	0	2	8	9	9	6	3	0	37
New York	0	0	0	0	0	0	2	2	5	12	8	6	35

(continued)

Table 2. Continued.

STATE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Rhode Island	0	0	0	0	0	0	0	0	1	1	0	0	2
Massachusetts	4	1	2	0	0	0	0	2	3	1	21	20	54
Puerto Rico	13	0	4	1	2	0	0	0	1	0	1	0	22
Virgin Islands	1	0	0	0	0	1	0	0	0	1	0	1	4
TOTAL	123	105	180	233	285	388	281	164	207	185	175	189	2515

Table 3. Marine turtle strandings reported from 1 January - 31 December 1990 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	45	54	117	164	199	319	192	82	139	119	75	93	1598
C. mydas	52	35	32	23	39	20	14	23	19	18	26	28	329
D. coriacea	1	4	8	11	14	14	4	2	7	15	16	6	102
E. imbricata	13	3	4	0	6	1	4	20	2	2	4	2	61
L. kempi	8	7	11	23	14	28	61	33	33	25	50	47	340
Unidentified	4	2	8	12	13	6	6	4	7	6	4	13	85
TOTAL	123	105	180	233	285	388	281	164	207	185	175	189	2515

Table 4(a). Marine turtle strandings reported from TEXAS, 1 January - 31 December 1990 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	5	8	14	27	6	5	26	7	6	7	10	15	136
C. mydas	9	3	2	4	1	0	0	1	0	1	1	4	26
D. coriacea	0	0	0	2	1	1	0	0	0	0	0	0	4
E. imbricata	0	2	0	0	2	0	3	19	0	0	2	0	28
L. kempi	2	3	4	12	3	6	49	25	15	9	16	6	150
Unidentified	0	0	0	0	2	0	1	0	3	3	0	2	11
TOTAL	16	16	20	45	15	12	79	52	24	20	29	27	355

Table 4(b). Marine turtle strandings reported from TEXAS, 1 January - 31 December 1990 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	0	0	0	2	1	1	2	11	10	5	1	0	33
Chambers	0	0	0	0	0	0	1	1	0	0	0	0	2
Harris	0	0	0	0	0	0	0	0	0	0	1	0	1
Galveston	0	2	1	5	3	2	19	4	5	3	12	3	59
Brazoria	0	2	1	1	1	0	1	2	0	1	3	0	12
Matagorda	1	1	3	0	2	2	17	2	1	1	1	0	31
Calhoun	0	3	2	2	0	1	2	3	4	6	4	4	31
Aransas	0	0	1	0	0	2	1	1	2	3	1	1	12
San Patricio	0	0	0	0	0	0	0	1	0	0	0	1	2
Nueces	5	0	6	23	3	2	21	20	0	1	1	7	89
Kleberg	0	2	4	4	0	1	11	3	0	0	2	5	32
Kenedy	4	0	1	2	1	0	0	2	0	0	1	3	14
Willacy	1	3	1	1	2	0	0	1	1	0	0	1	11
Cameron	5	3	0	5	2	1	4	1	1	0	2	2	26
TOTAL	16	16	20	45	15	12	79	52	24	20	29	27	355

Table 5(a). Marine turtle strandings reported from LOUISIANA, 1 January - 31 December 1990 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	2	0	2	2	1	4	1	0	0	0	12
C. mydas	0	0	0	0	0	0	1	0	1	0	0	0	2
D. coriacea	0	0	0	0	2	2	0	0	0	0	0	0	4
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	1	0	0	0	1	3	2	2	6	2	0	0	17
Unidentified	0	0	0	2	0	0	1	0	0	0	0	1	4
TOTAL	1	0	2	2	5	7	5	6	8	2	0	1	39

Table 5(b). Marine turtle strandings reported from LOUISIANA, 1 January - 31 December 1990 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	2	0	0	0	0	0	0	0	0	0	2
Jefferson	0	0	0	0	0	0	0	0	0	0	0	1	1
Cameron	1	0	0	2	5	7	5	6	8	2	0	0	36
TOTAL	1	0	2	2	5	7	5	6	8	2	0	1	39

Table 6(a). Marine turtle strandings reported from MISSISSIPPI, 1 January - 31 December 1990 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	1	1	0	2	5	1	1	1	1	2	1	16
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	0	1	0	0	0	0	0	1
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	1	1	3	0	0	0	0	0	0	5
Unidentified	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL	0	1	1	1	3	8	2	1	2	1	2	1	23

Table 6(b). Marine turtle strandings reported from MISSISSIPPI, 1 January - 31 December 1990 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	1	0	1	4	2	1	2	0	2	0	13
Harrison	0	1	0	1	2	4	0	0	0	1	0	1	10
TOTAL	0	1	1	1	3	8	2	1	2	1	2	1	23

Table 7(a). Marine turtle strandings reported from ALABAMA, 1 January - 31 Decemember 1990 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	2	1	0	0	0	0	0	0	3
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	2	1	0	0	0	0	0	0	3

Table 7(b). Marine turtle strandings reported from ALABAMA, 1 January - 31 December 1990 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	2	0	0	0	0	0	0	0	2
Mobile	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	0	0	0	0	2	1	0	0	0	0	0	0	3

Table 8(a). Marine turtle strandings reported from FLORIDA (GULF), 1 January - 31 December 1990 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	5	9	7	32	18	21	12	10	10	4	6	8	142
C. mydas	14	6	1	6	1	3	4	5	5	4	7	9	65
D. coriacea	0	0	3	0	1	0	1	0	0	0	0	0	5
E. imbricata	0	1	0	0	0	0	1	0	0	0	1	1	4
L. kempi	1	0	2	3	2	1	0	0	0	2	0	2	13
Unidentified	1	0	3	2	4	1	2	1	0	1	2	1	18
TOTAL	21	16	16	43	26	26	20	16	15	11	16	21	247

Table 8(b). Marine turtle strandings reported from FLORIDA (GULF), 1 January - 31 December 1990 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	14	7	1	7	0	8	9	11	8	8	10	12	95
Collier	0	1	1	5	5	1	1	0	1	0	0	2	17
Lee	0	2	3	2	1	3	1	1	1	2	0	1	17
Charlotte	0	0	0	0	0	1	1	0	0	0	0	0	2
Sarasota	0	2	1	1	4	2	1	1	1	0	1	0	14
Manatee	0	0	0	2	0	0	1	0	1	0	0	0	4
Hillsborough	0	0	1	1	0	2	0	0	0	0	0	1	5
Pinellas	3	2	2	10	5	2	2	0	1	0	1	1	29
Pasco	0	0	1	0	1	0	0	0	0	0	0	0	2
Citrus	0	0	0	0	0	0	0	0	0	0	0	1	1
Franklin	0	1	0	2	0	0	0	0	0	1	1	0	5
Gulf	1	0	0	4	0	0	0	0	0	0	1	0	6
Bay	3	0	1	7	2	4	1	1	0	0	0	1	20
Okaloosa	0	1	3	0	5	1	2	2	1	0	0	0	15
Santa Rosa	0	0	0	0	0	0	1	0	0	0	0	0	1
Escambia	0	0	2	2	3	2	0	0	1	0	2	2	14
TOTAL	21	16	16	43	26	26	20	16	15	11	16	21	247

Table 9(a). Marine turtle strandings reported from FLORIDA (ATLANTIC), 1 January - 31 December 1990 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	23	34	87	61	79	104	54	18	30	33	24	22	569
C. mydas	21	26	29	12	30	17	9	17	12	12	15	6	206
D. coriacea	0	4	2	2	0	2	0	0	1	0	3	3	17
E. imbricata	0	0	0	0	4	0	0	1	0	1	0	1	7
L. kempi	1	2	3	6	3	2	3	0	0	0	2	7	29
Unidentified	3	2	5	7	5	1	1	3	2	0	2	4	35
TOTAL	48	68	126	88	121	126	67	39	45	46	46	43	863

Table 9(b). Marine turtle strandings reported from FLORIDA (ATLANTIC), 1 January - 31 December 1990 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	0	0	0	0	8	23	5	1	2	6	5	1	51
Duval	0	3	2	12	10	25	2	1	2	9	5	5	76
St. John's	0	3	6	7	16	13	12	0	3	6	5	5	76
Flagler	1	0	5	5	3	4	4	1	1	1	2	2	29
Volusia	7	22	29	20	15	12	11	4	12	7	7	13	159
Brevard	9	12	34	20	20	19	14	12	5	0	2	3	150
Indian River	10	6	19	4	17	7	4	1	4	6	8	3	89
St. Lucie	9	10	20	3	8	1	7	2	6	3	2	5	76
Martin	1	4	5	4	3	3	4	4	2	3	2	2	37
Palm Beach	5	5	2	7	12	13	4	1	2	2	2	2	57
Broward	3	2	3	4	8	2	0	6	4	2	1	1	36
Dade	2	0	0	1	1	4	0	3	2	1	4	1	19
Monroe	1	1	1	1	0	0	0	3	0	0	1	0	8
TOTAL	48	68	126	88	121	126	67	39	45	46	46	43	863

Table 10(a). Marine turtle strandings reported from GEORGIA, 1 January - 31 December 1990 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	2	6	4	40	41	11	38	40	8	2	192
C. mydas	0	0	0	0	3	0	0	0	1	0	0	0	4
D. coriacea	0	0	3	2	1	0	0	0	0	3	1	2	12
E. imbricata	0	0	0	0	0	0	0	0	1	0	0	0	1
L. kempi	0	0	0	1	2	10	4	4	9	5	8	1	44
Unidentified	0	0	0	0	0	0	0	0	1	1	0	0	2
TOTAL	0	0	5	9	10	50	45	15	50	49	17	5	255

Table 10(b). Marine turtle strandings reported from GEORGIA, 1 January - 31 December 1990 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	2	1	3	4	5	0	3	6	0	0	24
Liberty	0	0	0	1	0	4	2	1	7	5	0	0	20
McIntosh	0	0	1	0	0	4	5	1	8	5	1	0	25
Glynn	0	0	2	4	3	18	17	8	28	24	5	2	111
Camden	0	0	0	3	4	20	16	5	4	9	11	3	75
TOTAL	0	0	5	9	10	50	45	15	50	49	17	5	255

Table 11(a). Marine turtle strandings reported from SOUTH CAROLINA, 1 January - 31 December 1990 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	5	5	15	16	7	23	17	3	0	91
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	1	0	0	3	2	2	0	0	0	2	7	0	17
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	1	2	1	1	1	0	0	6
Unidentified	0	0	0	0	0	1	0	0	0	1	0	1	3
TOTAL	1	0	0	8	7	19	18	8	24	21	10	1	117

Table 11(b). Marine turtle strandings reported from SOUTH CAROLINA, 1 January - 31 December 1990 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	2	0	1	1	5	3	2	1	0	15
Georgetown	0	0	0	0	1	0	3	2	9	1	0	0	16
Charleston	1	0	0	4	2	13	11	1	10	18	9	0	69
Colleton	0	0	0	0	0	2	0	0	1	0	0	0	3
Beaufort	0	0	0	2	4	3	3	0	1	0	0	1	14
TOTAL	1	0	0	8	7	19	18	8	24	21	10	1	117

Table 12(a). Marine turtle strandings reported from NORTH CAROLINA, 1 January - 31 December 1990 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	7	2	3	32	37	30	20	8	15	8	20	44	226
C. mydas	7	0	0	0	2	0	0	0	0	1	0	6	16
D. coriacea	0	0	0	2	4	5	0	0	0	0	0	0	11
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	1	1	0	0	0	0	1	1	1	1	0	9	15
Unidentified	0	0	0	1	2	3	1	0	0	0	0	4	11
TOTAL	15	3	3	35	45	38	22	9	16	10	20	63	279

Table 12(b). Marine turtle strandings reported from NORTH CAROLINA, 1 January - 31 December 1990 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	2	0	0	0	0	0	0	0	2
Dare	6	3	0	1	2	8	1	3	1	3	3	44	75
Hyde	0	0	0	0	0	0	1	0	0	0	13	16	30
Carteret	9	0	3	27	6	10	5	4	7	2	2	2	77
Onslow	0	0	0	1	17	11	2	0	2	3	1	1	38
Pender	0	0	0	1	2	1	3	0	0	0	0	0	7
New Hanover	0	0	0	1	5	1	0	0	0	1	0	0	8
Brunswick	0	0	0	4	11	7	10	2	6	1	1	0	42
TOTAL	15	3	3	35	45	38	22	9	16	10	20	63	279

Table 13(a). Marine turtle strandings reported from VIRGINIA, 1 January - 31 December 1990 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	3	0	1	1	43	90	13	4	4	2	1	0	162
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	3	2	0	0	0	0	1	0	6
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	2	2	0	0	0	1	0	0	5
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	0	1	1	48	94	13	4	4	3	2	0	173

Table 13(b). Marine turtle strandings reported from VIRGINIA, 1 January - 31 December 1990 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	2	2	1	0	0	0	1	0	6
Northampton	0	0	0	0	9	26	3	0	0	1	1	0	40
Northumberland	0	0	0	0	0	1	0	0	0	0	0	0	1
Lancaster	0	0	0	0	0	2	2	0	0	0	0	0	4
Mathews	2	0	0	0	2	8	0	0	0	0	0	0	12
Gloucester	0	0	0	0	6	8	4	1	0	1	0	0	20
York	0	0	0	0	2	5	0	0	0	0	0	0	7
Hampton	1	0	1	0	6	19	0	0	1	0	0	0	28
Newport News	0	0	0	0	0	2	0	0	0	0	0	0	2
Suffolk	0	0	0	0	1	0	0	0	0	0	0	0	1
Norfolk	0	0	0	0	2	2	0	0	0	0	0	0	4
Virginia Beach	0	0	0	1	18	19	3	3	3	1	0	0	48
TOTAL	3	0	1	1	48	94	13	4	4	3	2	0	173

Table 14(a). Marine turtle strandings reported from MARYLAND, 1 January - 31 December 1990 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	4	0	0	0	1	0	0	6
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	1	4	0	0	0	1	0	0	6

Table 14(b). Marine turtle strandings reported from MARYLAND, 1 January - 31 December 1990 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	1	2	0	0	0	0	0	0	3
St. Marys	0	0	0	0	0	1	0	0	0	0	0	0	1
Talbot	0	0	0	0	0	0	0	0	0	1	0	0	1
Worcester	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	0	0	0	0	1	4	0	0	0	1	0	0	6

Table 15(a). Marine turtle strandings reported from DELAWARE, 1 January - 31 December 1990 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	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	1	0	0	0	0	1

Table 15(b). Marine turtle strandings reported from DELAWARE, 1 January - 31 December 1990 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	1	0	0	0	0	1
TOTAL	0	0	0	0	0	0	0	1	0	0	0	0	1

Table 16(a). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1990 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	2	7	8	7	3	0	0	27
C. mydas	0	0	0	0	0	0	0	0	0	0	1	0	1
D. coriacea	0	0	0	0	0	0	1	1	2	3	2	0	9
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	2	8	9	9	6	3	0	37

Table 16(b). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1990 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
Monmouth	0	0	0	0	0	0	3	5	2	1	0	0	11
Ocean	0	0	0	0	0	1	0	1	5	3	3	0	13
Atlantic	0	0	0	0	0	0	1	0	1	1	0	0	3
Cape May	0	0	0	0	0	0	4	2	1	1	0	0	8
Cumberland	0	0	0	0	0	1	0	0	0	0	0	0	1
Salem	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	0	0	0	2	8	9	9	6	3	0	37

Table 17(a). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1990 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	2	4	3	1	0	11
C. mydas	0	0	0	0	0	0	0	0	0	0	1	1	2
D. coriacea	0	0	0	0	0	0	1	0	0	5	2	1	9
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	4	4	4	13
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	2	2	5	12	8	6	35

Table 17(b). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1990 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
Suffolk	0	0	0	0	0	0	1	1	4	8	8	5	27
Nassau	0	0	0	0	0	0	0	0	0	3	0	1	4
Queens	0	0	0	0	0	0	1	0	0	1	0	0	2
Richmond	0	0	0	0	0	0	0	1	1	0	0	0	2
TOTAL	0	0	0	0	0	0	2	2	5	12	8	6	35

Table 18(a). Marine turtle strandings reported from RHODE ISLAND, 1 January - 31 December 1990 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	1	1	0	0	2
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	1	0	0	2

Table 18(b). Marine turtle strandings reported from RHODE ISLAND, 1 January - 31 December 1990 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	0	0	0	0	0	1	0	0	0	1
Washington	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	0	0	0	0	0	0	0	0	1	1	0	0	2

Table 19(a). Marine turtle strandings reported from MASSACHUSETTS, 1 January - 31 December 1990 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	2	0	0	0	0	0	0	1	0	0	0	1	4
C. mydas	0	0	0	0	0	0	0	0	0	0	1	1	2
D. coriacea	0	0	0	0	0	0	0	1	3	1	0	0	5
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	2	1	2	0	0	0	0	0	0	0	20	18	43
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4	1	2	0	0	0	0	2	3	1	21	20	54

Table 19(b). Marine turtle strandings reported from MASSACHUSETTS, 1 January - 31 December 1990 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
Essex	0	0	0	0	0	0	0	0	0	1	0	0	1
Barnstable	4	1	2	0	0	0	0	0	3	0	21	20	51
Dukes	0	0	0	0	0	0	0	2	0	0	0	0	2
TOTAL	4	1	2	0	0	0	0	2	3	1	21	20	54

Table 20. Marine turtle strandings reported from PUERTO RICO, 1 January - 31 December 1990 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	1	2	0	0	0	0	0	0	0	3
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	13	0	4	0	0	0	0	0	1	0	1	0	19
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	13	0	4	1	2	0	0	0	1	0	1	0	22

Table 21. Marine turtle strandings reported from U.S. VIRGIN ISLANDS, 1 January - 31 December 1990 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	1	0	0	0	0	0	0	0	0	0	0	1	2
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	0	0	0	1	0	0	0	1	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	1	0	0	0	0	1	0	0	0	1	0	1	4

Table 22. Marine turtle strandings reported from GULF REGION, 1 January - 31 December 1990 by species and month of occurrence.

STATISTICAL ZONE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Zone 24	6	3	1	2	0	5	2	4	5	2	3	4	37
Zone 25	0	0	0	0	0	0	1	0	0	0	0	0	1
ZONE 1	8	4	0	4	0	2	6	7	3	6	6	6	52
ZONE 2	0	0	0	0	0	1	0	0	0	0	1	0	2
ZONE 3	0	1	0	1	2	0	1	0	0	0	0	1	6
ZONE 4	0	2	4	7	4	5	2	1	2	2	0	2	31
ZONE 5	3	2	4	14	8	6	4	1	2	0	2	1	47
ZONE 6	0	2	1	0	2	0	0	0	1	0	0	2	8
ZONE 7	0	0	0	2	0	0	0	0	0	0	1	0	3
ZONE 8	4	1	1	11	2	4	1	1	0	0	1	1	27
ZONE 9	0	1	3	0	4	1	3	2	1	0	0	0	15
ZONE 10	0	0	2	2	6	2	0	0	1	0	2	2	17
ZONE 11	0	1	3	1	2	9	2	1	2	1	2	1	25
ZONE 12	0	0	0	0	1	0	0	0	0	0	0	0	1
ZONE 13	0	0	0	0	0	0	0	0	0	0	0	1	1
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	0	0	0	0	0
ZONE 16	0	0	0	0	1	0	0	0	0	0	0	0	1
ZONE 17	1	0	0	2	4	7	5	6	8	2	0	0	35
ZONE 18	0	2	2	8	5	3	23	17	15	7	16	3	101
ZONE 19	1	6	6	2	2	5	20	7	7	11	6	4	77
ZONE 20	9	2	10	29	2	3	32	25	0	2	4	16	134
ZONE 21	6	6	2	6	6	1	4	3	2	0	3	4	43
TOTAL	38	33	39	91	51	54	106	75	49	33	47	48	664

Table 23. Marine turtle strandings reported from SOUTHEAST REGION, 1 January - 31 December 1990 by species 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	3	1	1	2	1	4	0	6	2	1	5	3	29
ZONE 26	8	7	5	11	21	13	6	7	7	5	3	3	96
ZONE 27	22	20	47	12	30	13	13	10	12	11	12	10	212
ZONE 28	10	13	35	24	18	19	14	12	4	2	5	6	162
ZONE 29	5	23	35	25	25	20	19	2	16	7	10	16	203
ZONE 30	0	4	3	17	30	77	31	7	8	29	22	10	238
ZONE 31	0	0	4	5	5	27	29	10	45	40	6	2	173
ZONE 32	1	0	1	7	7	19	9	1	12	18	9	1	85
ZONE 33	0	0	0	6	13	10	19	9	19	5	2	0	83
ZONE 34	7	0	3	30	29	23	10	4	9	5	3	3	126
ZONE 35	8	3	0	1	2	8	2	3	1	2	16	60	106
ZONE 36	0	0	0	0	2	0	0	0	0	1	0	0	3
TOTAL	64	71	134	140	183	233	152	71	135	126	93	114	1516

Table 24. Marine turtle strandings reported from NORTHEAST REGION, 1 January - 31 December 1990 by species and month of occurrence.

STATISTICAL ZONE	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Zone 36	0	0	0	1	22	21	3	3	3	1	0	0	54
ZONE 37	3	0	1	0	26	73	9	1	1	2	2	0	118
ZONE 38	0	0	0	0	1	3	3	1	0	2	0	0	10
ZONE 39	0	0	0	0	0	3	3	4	4	4	3	0	21
ZONE 40	0	0	0	0	0	0	5	7	10	13	6	2	43
ZONE 41	4	1	2	0	0	0	0	2	2	1	23	18	53
ZONE 42	0	0	0	0	0	0	0	0	2	1	0	6	9
TOTAL	7	1	3	1	49	100	23	18	22	24	34	26	308

Table 25. Marine turtle strandings by species and month of occurence for Zones 4 and 5. Sampling was conducted systematically throughout 1990.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	4	5	19	12	11	6	1	4	1	2	2	67
C. mydas	3	0	1	0	0	0	0	1	0	0	0	0	5
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	2	2	0	0	0	0	0	1	0	1	6
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	4	8	21	12	11	6	2	4	2	2	3	78

Table 26. Marine turtle strandings by species and month of occurence for Zones 17 thru 21. Sampling was conducted systematically throughout 1990.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	5	8	14	27	8	7	27	11	7	7	10	15	146
C. mydas	9	3	2	4	1	0	1	1	1	1	1	4	28
D. coriacea	0	0	0	2	2	3	0	0	0	0	0	0	7
E. imbricata	0	2	0	0	2	0	3	19	0	0	2	0	28
L. kempi	3	3	4	12	4	9	51	27	21	11	16	6	167
Unidentified	0	0	0	2	2	0	2	0	3	3	0	2	14
TOTAL	17	16	20	47	19	19	84	58	32	22	29	27	390

Table 27. Marine turtle strandings by species and month of occurence for Zones 28 thru 30. Sampling was conducted systematically throughout 1990.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	11	25	60	50	61	106	59	16	24	37	25	19	493
C. mydas	2	9	6	4	6	1	1	3	1	1	1	2	37
D. coriacea	0	3	1	2	0	2	0	0	1	0	4	2	15
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	1	2	2	5	3	6	3	0	0	0	6	8	36
Unidentified	1	1	4	5	3	1	1	2	2	0	1	1	22
TOTAL	15	40	73	66	73	116	64	21	28	38	37	32	603

Table 28. Marine turtle strandings by species and month of occurence for Zone 31. Sampling was conducted systematically throughout 1990.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	2	3	2	21	25	6	35	31	2	1	128
C. mydas	0	0	0	0	1	0	0	0	0	0	0	0	1
D. coriacea	0	0	2	1	0	0	0	0	0	3	0	1	7
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	1	2	6	4	4	9	5	4	0	35
Unidentified	0	0	0	0	0	0	0	0	1	1	0	0	2
TOTAL	0	0	4	5	5	27	29	10	45	40	6	2	173

Table 29. Marine turtle strandings by species and month of occurence for Zone 32. Sampling was conducted systematically throughout 1990.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	3	4	16	7	1	10	15	2	0	58
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	1	0	1	4	3	1	0	0	0	2	7	0	19
E. imbricata	0	0	0	0	0	0	0	0	1	0	0	0	1
L. kempi	0	0	0	0	0	1	2	0	1	1	0	0	5
Unidentified	0	0	0	0	0	1	0	0	0	0	0	1	2
TOTAL	1	0	1	7	7	19	9	1	12	18	9	1	85

Table 30. Strandings of headstarted turtles reported through the STSSN, 1 January - 31 December 1990.

Species: *Lepidochelys kempi*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Texas	0	0	0	1	0	0	6	0	3	2	3	0	15
Mississippi	0	0	0	0	0	0	0	0	1	0	0	0	1
Florida (Gulf)	0	0	0	0	1	0	0	0	0	0	0	0	1
Florida (Atlantic)	0	1	0	0	0	0	0	0	0	0	0	0	1
Georgia	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	0	1	0	1	1	1	6	0	4	2	3	0	19

Species: *Chelonia mydas*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Georgia	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

Species: *Caretta caretta*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Florida (Atlantic)	0	0	0	1	0	0	0	0	0	0	0	0	1
TOTAL	0	0	0	1	0	0	0	0	0	0	0	0	1

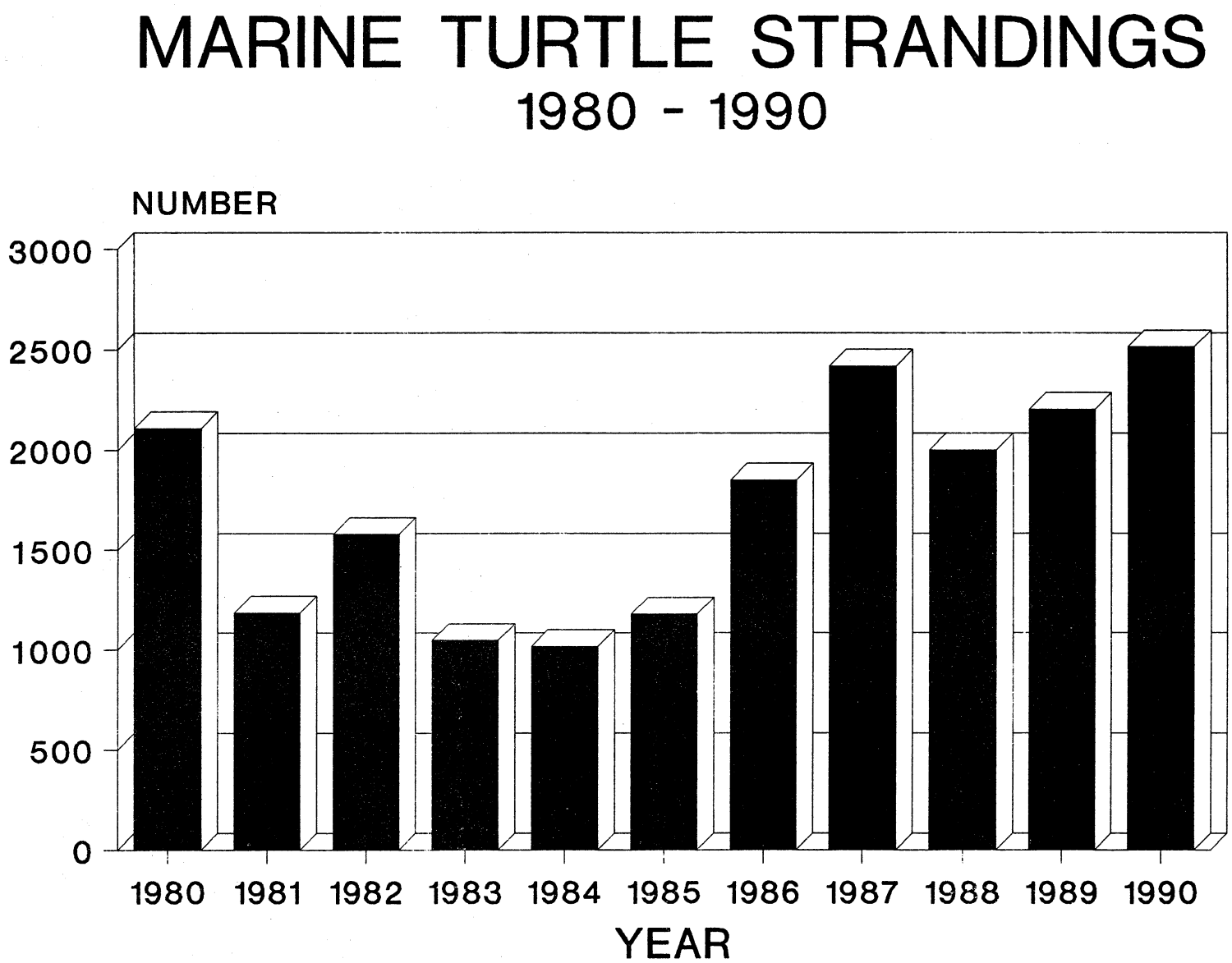


Figure 1. Marine turtle strandings reported annually from the U.S. Atlantic and Gulf of Mexico, 1980 - 1990. All species are combined.

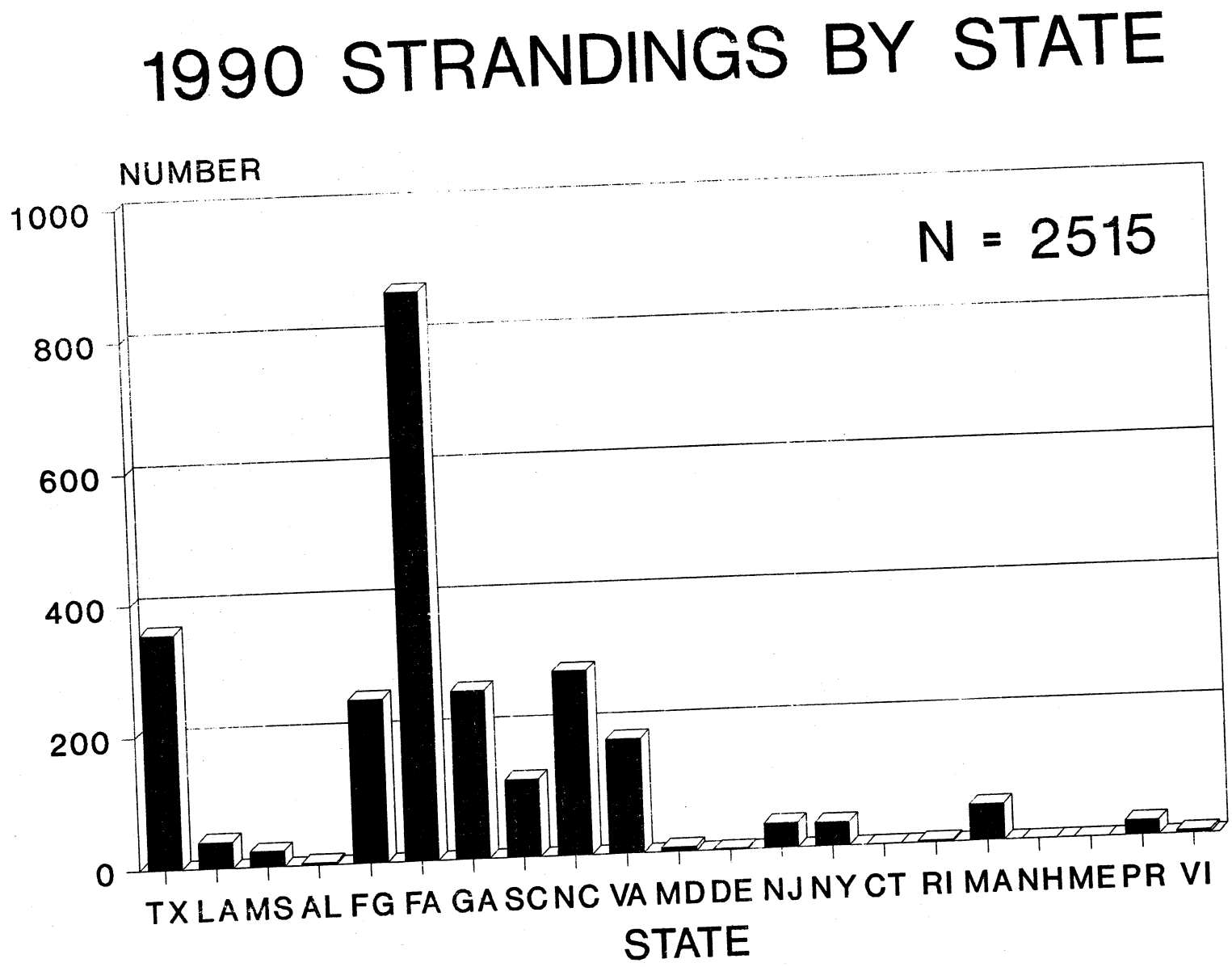


Figure 2. Marine turtle strandings reported from the U.S. Atlantic and Gulf of Mexico, 1990. FG = Florida (Gulf), FA = Florida (Atlantic).

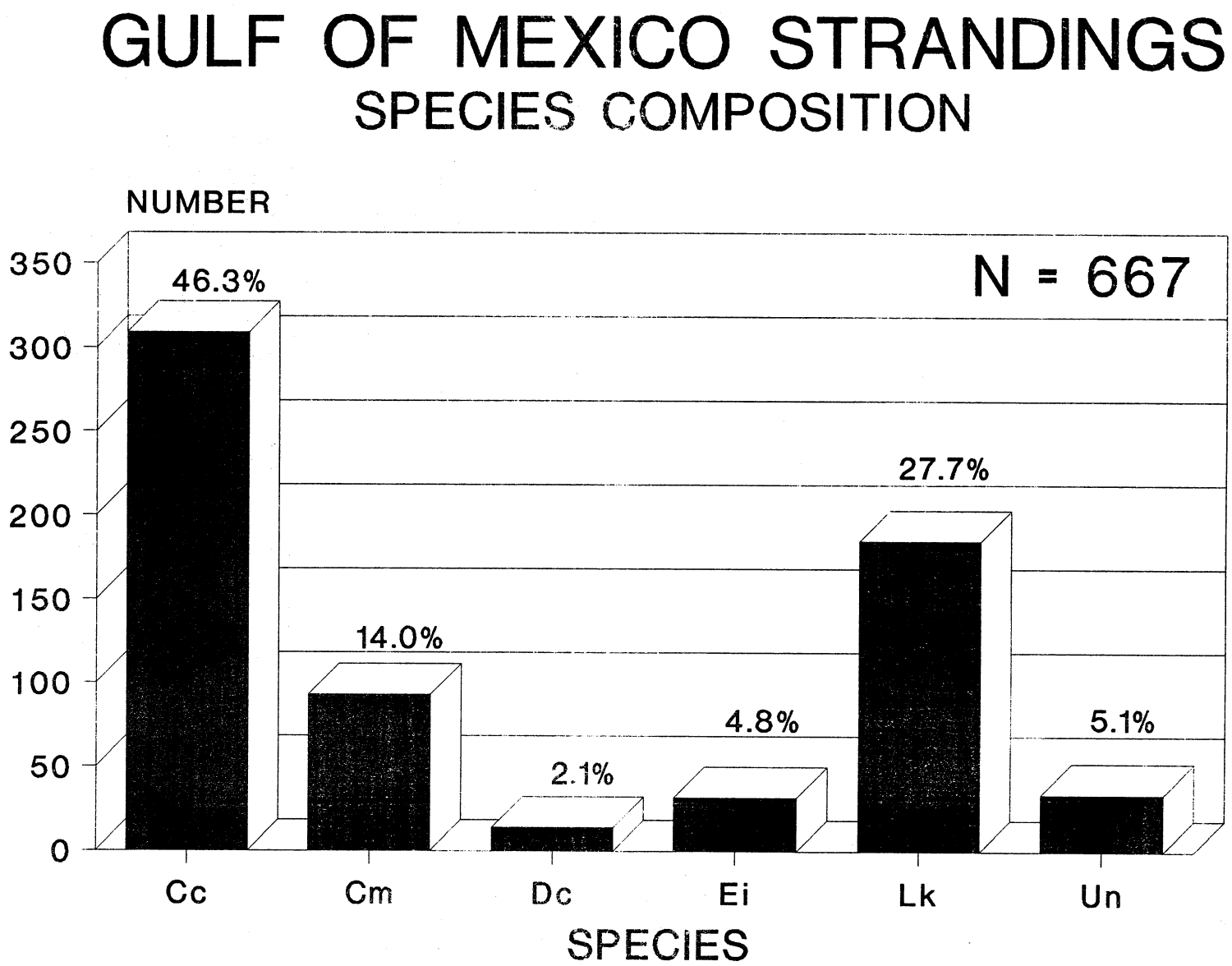


Figure 3. Species composition of stranded marine turtles reported from the Gulf of Mexico, 1990.

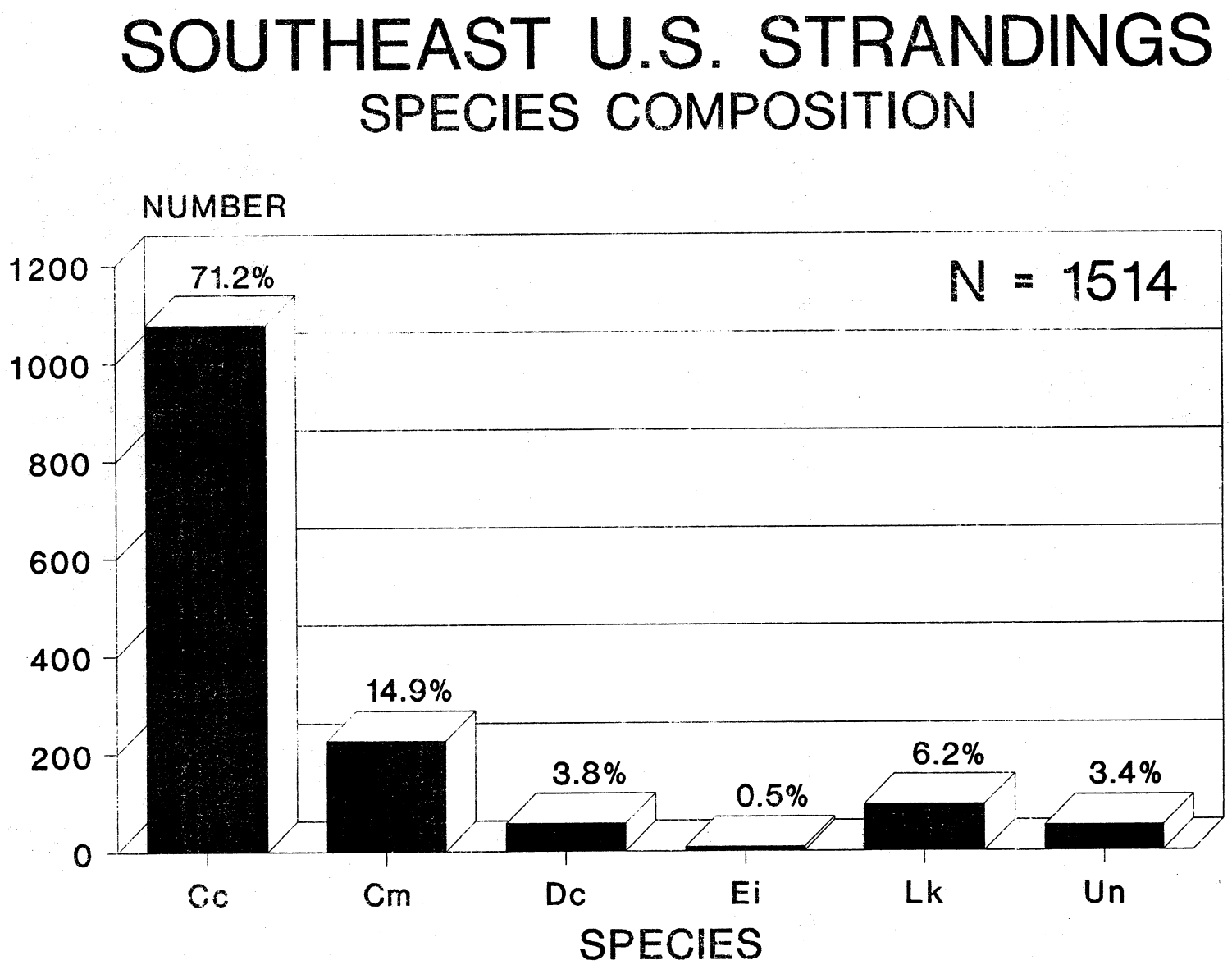


Figure 4. Species composition of stranded marine turtles reported from the southeast U.S. Atlantic, 1990.

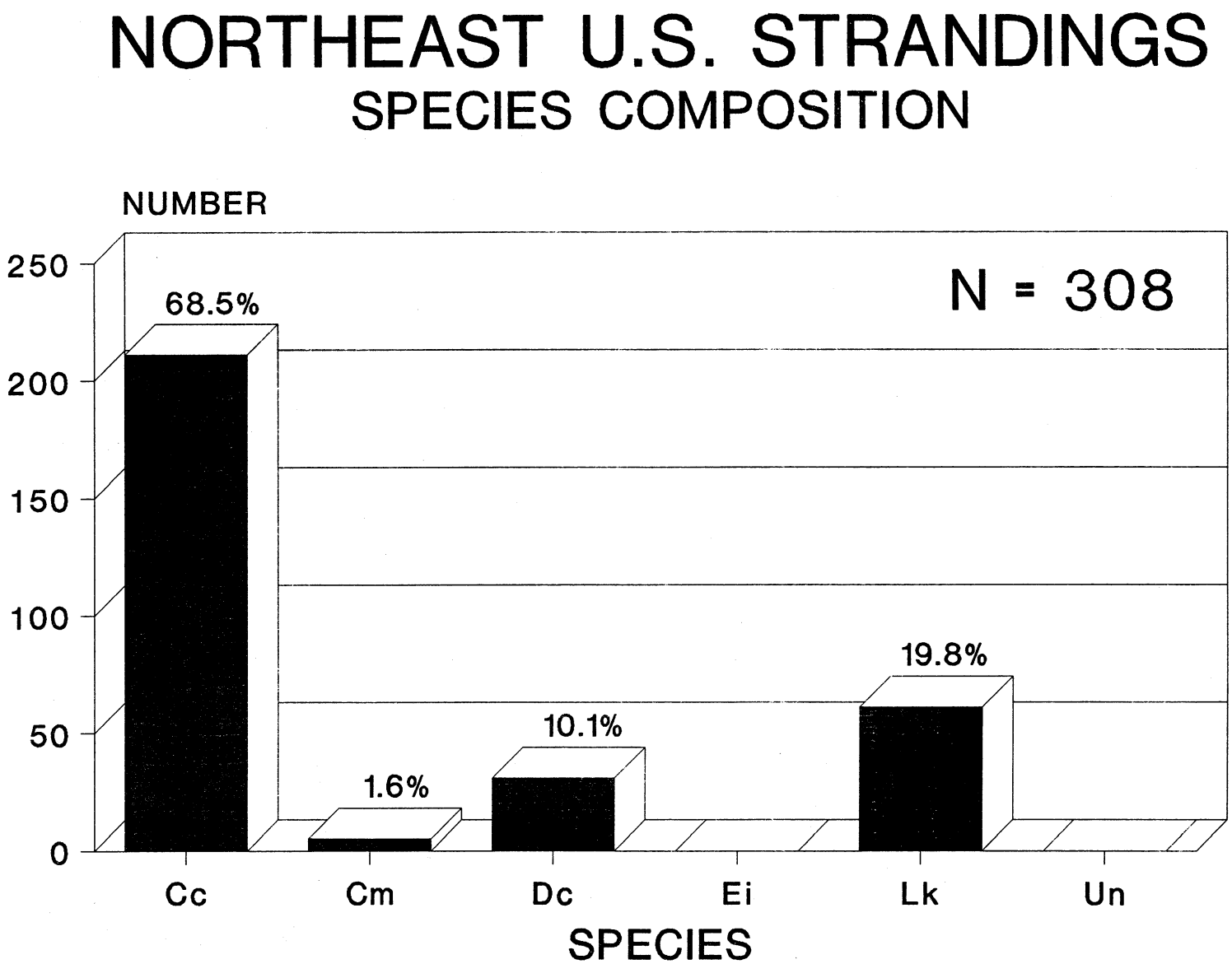
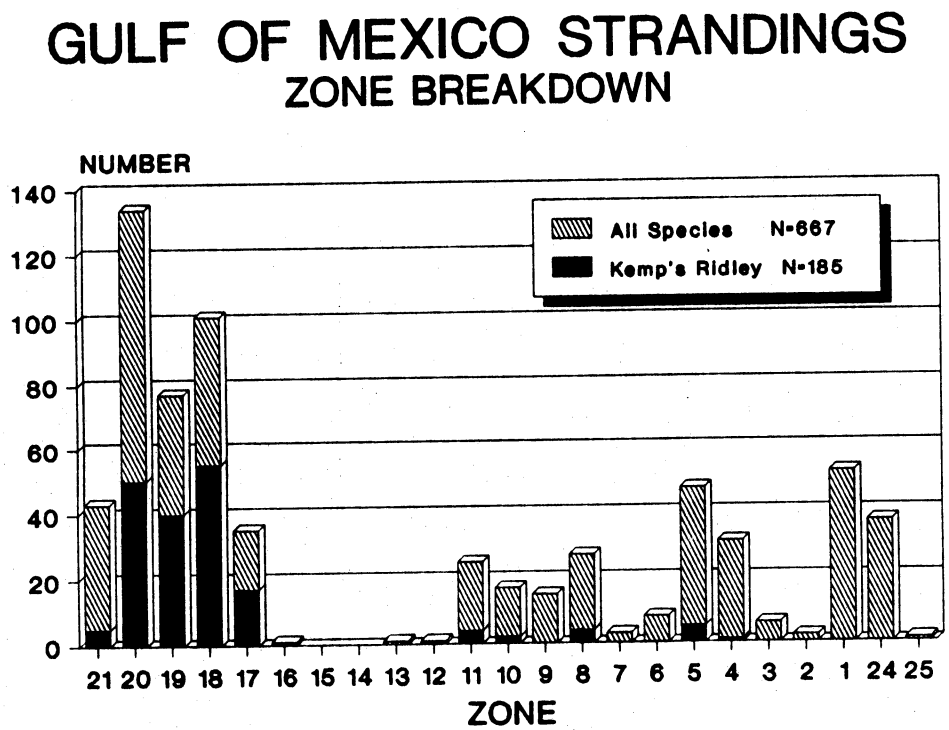


Figure 5. Species composition of stranded marine turtles reported from the northeast U.S. Atlantic, 1990.



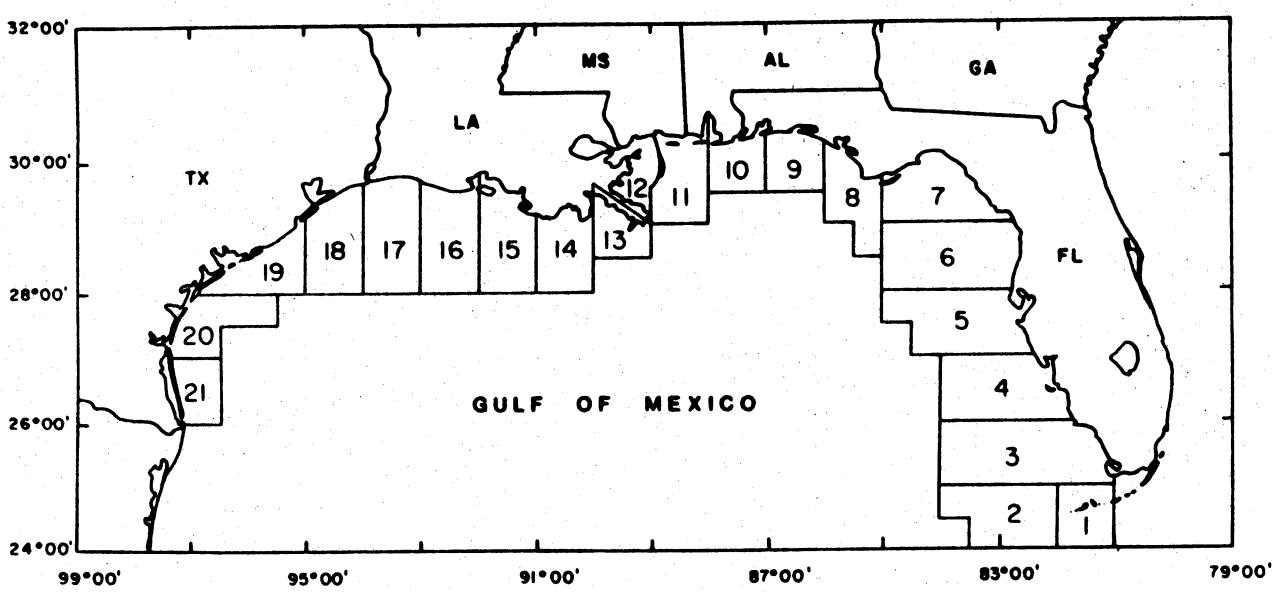
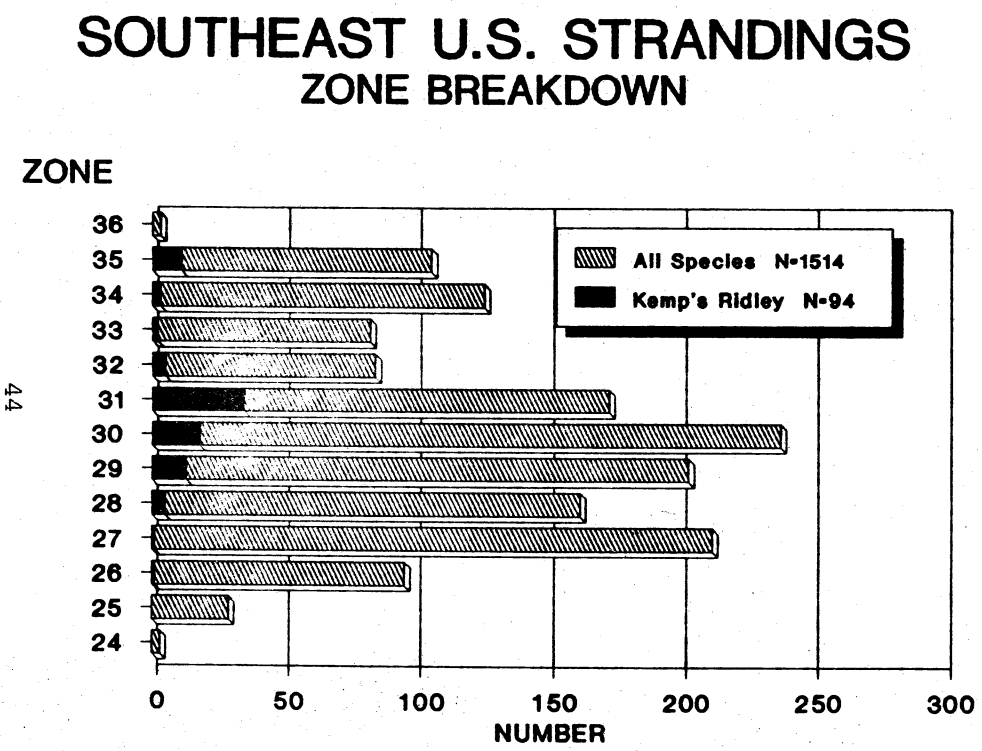


Figure 6. Marine turtle strandings reported from the Gulf of Mexico by statistical zone, 1990.



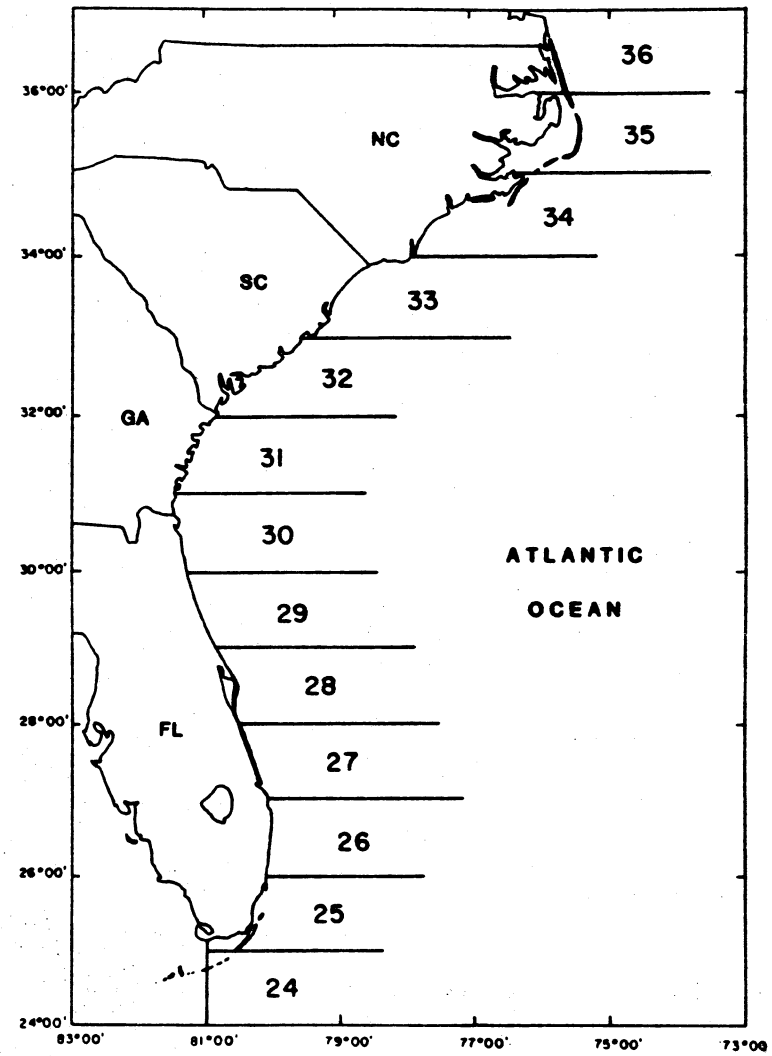
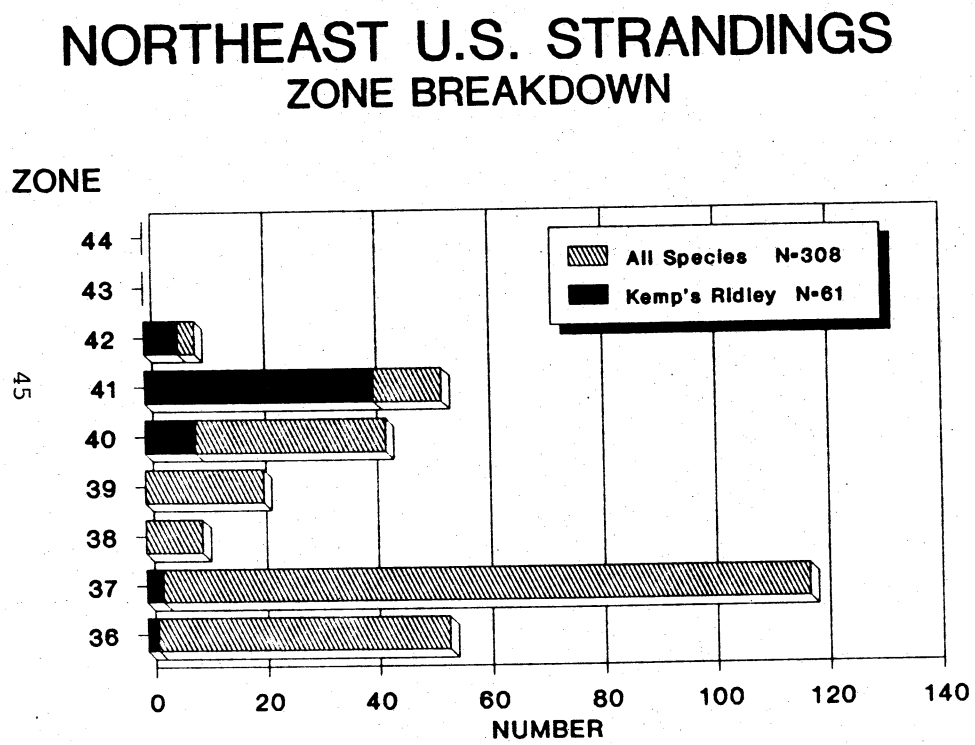


Figure 7. Marine turtle strandings reported from the southeast U.S. Atlantic by statistical zone, 1990.



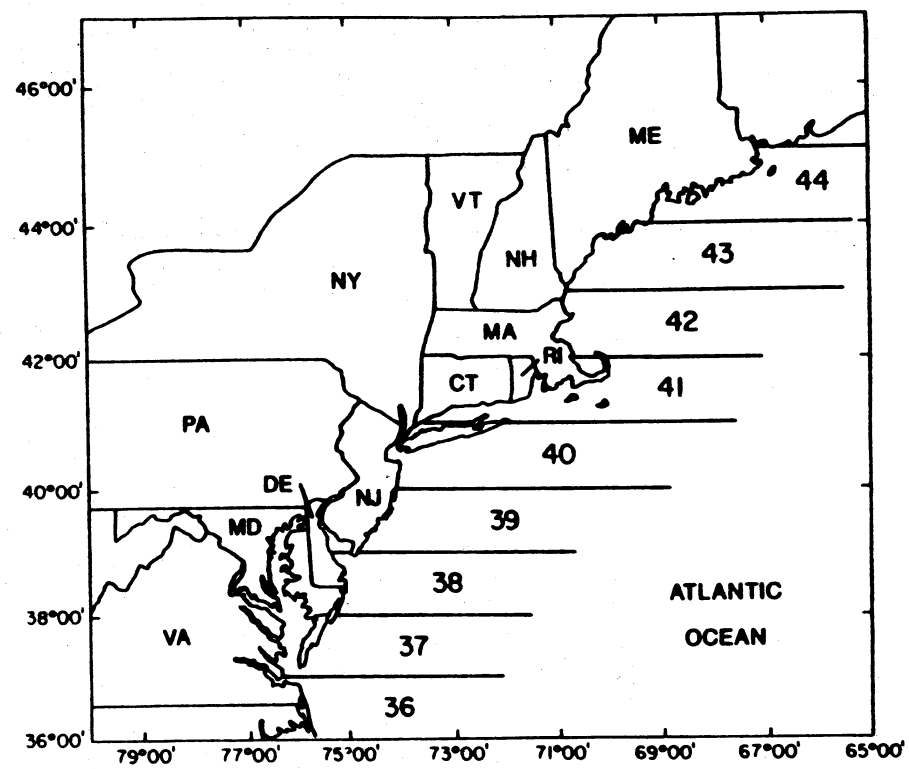


Figure 8. Marine turtle strandings reported from the northeast U.S. Atlantic by statistical zone, 1990.

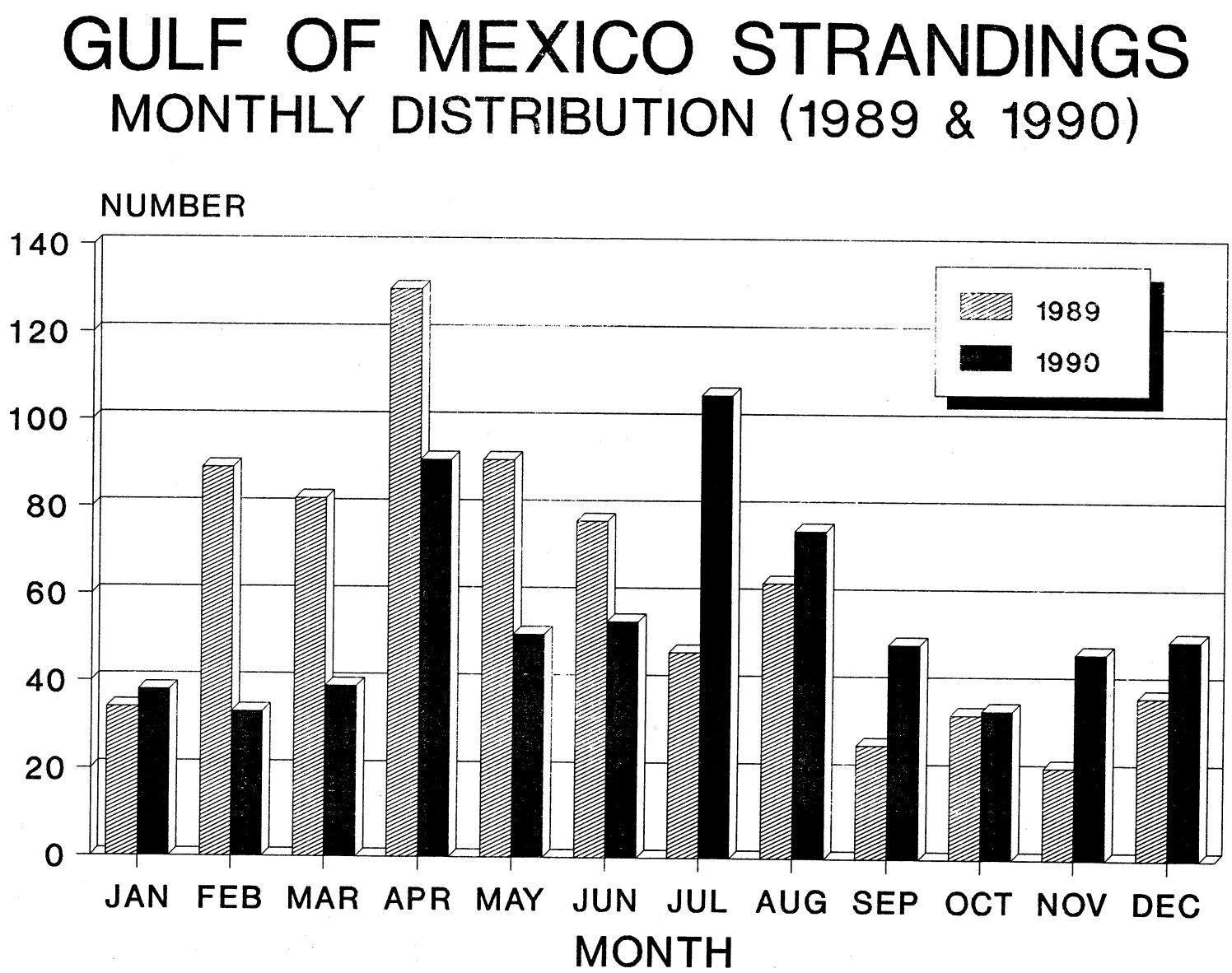


Figure 9. Monthly distribution of marine turtle strandings reported from the Gulf of Mexico, 1989 and 1990. All species are combined.

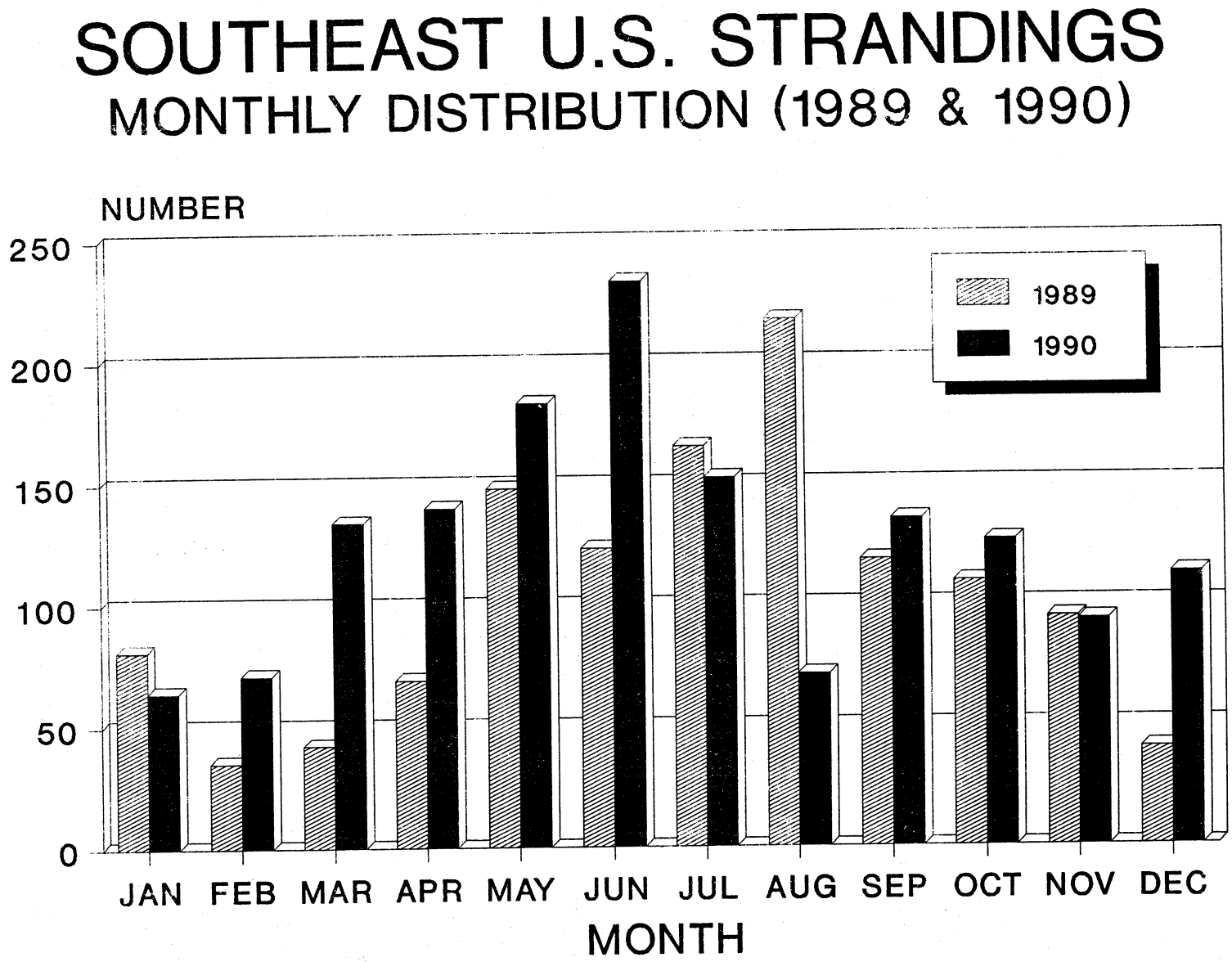


Figure 10. Monthly distribution of marine turtle strandings reported from the southeast U.S. Atlantic, 1989 and 1990. All species are combined.

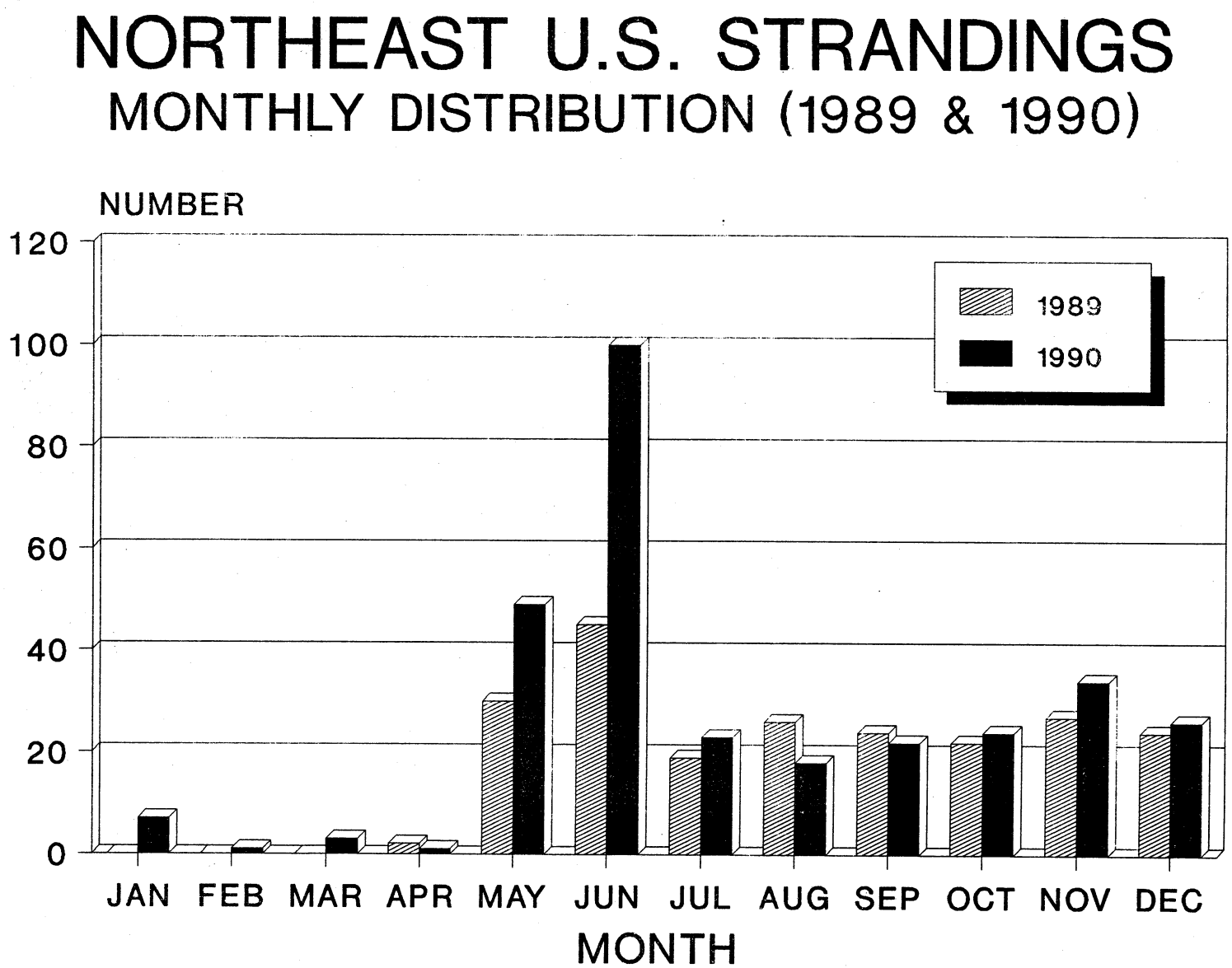


Figure 11. Monthly distribution of marine turtle strandings reported from the northeast U.S. Atlantic, 1989 and 1990. All species are combined.