1988 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 the calendar year 1988. The numbers presented are considered minimum stranding figures, as they are reported strandings only, not all stranding events. Effort expended in the collection of stranding data during 1988 varied both geographically and temporally. Coverage ranged from systematic weekly (or more frequent) sampling to no sampling at all in some coastal areas.

A total of 2020 stranded marine turtles were reported during 1988. Of these, 1991 were "wild" strandings and the remaining 29 were known headstarted turtles. Headstarted turtles are hatched and raised in captivity for approximately six to twelve months before being tagged and released. Strandings of headstarted turtles are documented in Table 23, 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 an added 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).

Thirteen states reported strandings during the twelve month period. They are: Texas, Louisiana, Mississippi, Alabama, Florida, Georgia, South Carolina, North Carolina, Virginia, New Jersey, New York, Rhode Island, and Massachusetts. There were no stranding records received from Maryland, Delaware, 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 during the period 1984-1988. The 1988 stranding total of 1991 turtles is a 16% decrease from the 1987 stranding total. The 1988 total is the third highest annual total, surpassed only by strandings in 1987 and 1980, and accounts for 13.8% of all reported strandings over the nine year period 1980-1988.

State and Regional Distribution

Reported strandings during 1988 are summarized by state in Table 1 and Figure 2. Florida reported the highest number of strandings during 1988, accounting for 49% of the total (11% Florida-Gulf, 38% Florida-Atlantic). Georgia accounted for 11% of the total reported strandings, while Texas and North Carolina reported the third and fourth highest stranding frequencies, accounting for 10% each.

Regionally, 24.3% of total strandings were reported from the Gulf of Mexico (TX,LA,MS,AL,FL-Gulf), 64.0% from the southeast U.S. Atlantic (FL-Atlantic,GA,SC,NC), 11.2% 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 4-19. These tables summarize strandings by species and month (all counties combined) and by county and month (all species combined).

Network-wide, 82.1% of all reports were classified as offshore strandings and 17.9% 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 1988 (excluding the Caribbean) was as follows:

	GULF	SOUTHEAST U.S.	NORTHEAST U.S.
INSHORE	94 (19.4%)	146 (11.5%)	115 (51.6%)
OFFSHORE	390 (80.6%)	1128 (88.5%)	108 (48.4%)

Species Composition

Throughout the network region, loggerheads (Caretta caretta) were the most frequently stranded species making up 69.3% (1380) of the total. Kemp's ridleys (Lepidochelys kempi) were the second most frequently reported species at 10.9% (217); green turtle (Chelonia mydas) strandings comprised 9.9% (198) of the total; leatherbacks (Dermochelys coriacea) accounted for 4.0% (79) of all reports; and hawksbills (Eretmochelys imbricata) were reported least frequently making up 1.4% (27) of the total. Turtles not identified to species accounted for 4.5% (90) 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 making up 64% (307), 72% (915), and 71% (158) of the region total 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 16% (76) of the total, followed by green turtles comprising 9% (45). In the southeast U.S. Atlantic, green turtles were the second most frequently stranded species accounting for 12% (146) of all reports, while Kemp's ridleys made up 10% (122) of the stranding total. In the northeast U.S. Atlantic, leatherback and Kemp's ridley strandings accounted for 17% (38) and 9% (19) of the region total, respectively.

As compared to 1987, strandings of green turtles increased 21% for all regions combined. This increase occurred only in the southeast U.S. Atlantic where reports of green turtle strandings increased from 77 in 1987 to 147 in 1988, almost a 100% increase. Green turtle strandings decreased in all other regions.

Strandings of leatherbacks, loggerheads, and hawksbills decreased 47%, 22%, and 10%, respectively, for all regions combined. The decrease in leatherback strandings occurred in the Atlantic regions with strandings dropping from 144 in 1987 to 68 in 1988, a little more than a 100% decrease. Strandings of leatherbacks in the Gulf of Mexico increased over 1987 levels. Strandings of hawksbills decreased from 13 in 1987 to 8 in 1988 in the southeast U.S. Atlantic, but increased in the Gulf of Mexico from 11 in 1987 to 15 in 1988. No hawksbills stranded in the northeast U.S. Atlantic. Fewer loggerhead strandings were reported from all regions with decreases of 19%, 23%, and 19% in the Gulf of Mexico, southeast U.S. Atlantic, and northeast U.S. Atlantic, respectively.

Strandings of Kemp's ridleys remained consistent with 1987 levels for all regions combined. However, in the southeast U.S. Atlantic, Kemp's ridley strandings more than doubled, increasing from 52 in 1987 to 122 in 1988. Strandings of Kemp's ridleys decreased from 103 to 76 in the Gulf of Mexico and from 65 to 19 in the northeast U.S. Atlantic.

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 20-22 summarize 1988 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 were approximately equally divided between the eastern Gulf (Zones 1-12, 24, 25) and the western Gulf (Zones 13-21). Sixty-seven percent (67%) 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. Zone 17 was the only zone in which Kemp's ridley strandings decreased substantially, dropping from 14 in 1987 to 1 in 1988.

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 of 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. Peak strandings were reported from Zone 30 off the northeast Florida coast and southern tip of Georgia, 22% of all southeast U.S. strandings occurred in this zone. Zone 30 has had the highest number of strandings in the network since 1984. Zones 29 and 27 off the Florida coast accounted for the second and third highest stranding frequencies, comprising 16% and 13% of the region total, respectively. Strandings in Zones 31 and 32 substantially decreased from a 1987 total of 514 to 217 in 1988. Zones 29, 30, and 31 accounted for 83% of all southeast

U.S. Kemp's ridley strandings. Kemp's ridley strandings in these zones increased from 29 in 1987 to 101 in 1988. Strandings of Kemp's ridleys in all other zones remained relatively consistent with 1987 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 63% 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 represent 28 % of the total northeast U.S. strandings. Strandings in Zones 40 and 41 substantially decreased from a 1987 total of 168 to only 62 in 1988. There was a 94% decrease in the number of turtles reported cold-stunned as compared to 1987 which may account for this overall decrease in strandings. Sixty-eight percent (68%) of all northeast U.S. Kemp's ridley strandings were reported from Zones 36 and 37, with the remaining 32% being reported from Zone 41.

Systematic Sampling

Sampling in selected statistical zones was completed systematically to develop an index of mortality that can be compared spatially and temporally. For 1988, 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 and 29 with the addition of zone 30 in November 1988. The Georgia Department of Natural Resources implemented systematic sampling of zone 31 in September 1988. The South Carolina 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 <u>index</u> of total mortality. The peak in total strandings in the Gulf (zones 4, 5, 17-21) occurred in April/May (Tables 23 and 24). In South Carolina (zone 32) the peak in total strandings occurred in July/August (Table 27). Reported strandings along the Florida east coast (zones 28,29) were relatively high in all months except February (Table 25). Systematic sampling was not initiated in Georgia until September, thus a peak for zone 31 could not be determined (Table 26).

Temporal Distribution of Strandings

Table 2 summarizes 1988 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 1987 and 1988 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 during all months, with a peak during the period April-May. Stranding frequencies in the Gulf of Mexico decreased or remained consistent with 1987 levels for all months except November when strandings increased more than 100%, from 17 in 1987 to 46 in 1988. Overall, stranding frequencies in the Gulf of Mexico followed the same general trend by month in 1988 as they did in 1987.

In the southeast U.S. Atlantic (Figure 10), strandings peaked during the summer months of May - August with a secondary peak in November. Strandings in the southeast U.S. Atlantic increased over 1987 levels in all months except May, June, and July. Total strandings in these three months decreased from 910 in 1987 to 437 in 1988.

In the northeast U.S. Atlantic (Figure 11), June was the peak stranding month accounting for 27% of all strandings within the region. Strandings in May increased from 4 in 1987 to 20 in 1988, while a decrease in strandings occurred during the period August - December. Strandings in all other months remained consistent with 1987 levels. June and July strandings are almost entirely comprised of Virginia strandings (89%), while the months of August - December represent turtles stranding in Virginia (42%), New York (21%), New Jersey (18%), Massachusetts (17%), and Rhode Island (2%).

Condition of Stranded Turtles

Of 1991 stranded turtles, 93.1% were dead, 5.8% were alive, and the conditions of the remaining 1.1% were not recorded. Of the 115 live turtles, 18% were released, 57% subsequently died, and the fates of the remaining 29 turtles (25%) are unknown. A total of 148 turtles (7.4%) were reported as necropsied.
The conditions of the 1854 turtles stranded dead were reported as follows:

Fresh Dead	424 (22.9%)
Moderately Decomposed	687 (37.1%)
Severely Decomposed	559 (30.1%)
Dried Carcass	110 (5.9%)
Skeleton, Bones Only	74 (4.0%)

Carcass Anomalies

Observations (not necessarily causes of death) recorded on stranding reports specific to the individual turtle are coded as a permanent part of each stranding record. Selected carcass anomalies are summarized below. Occurrence rates reported during 1987 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.

	1987	1988
Boat Related Injuries (Prop or Collision)	7.3%	9.0%
Carapace Damage (Unknown Cause)	7.3%	10.4%
Plastron Damage (Unknown Cause)	1.3%	1.0%
Skull Injuries	2.4%	2.4%
Skull Missing	2.1%	3.5%
Skull & Flipper(s) Combination Missing	7.0%	7.1%
Flipper(s) Missing (Unknown Cause)	4.0%	7.3%
Flipper(s) Missing (Man Induced)	1.9%	1.2%
Partial Flipper Damage (Unknown Cause)	7.9%	8.6%
Bullet Wounds	.8%	.5%
Apparent Shark Wounds	1.2%	.7%
External Tumors	1.5%	1.3%
Apparent Deliberate Mutilation	3.3%	3.3%
Tar or Oil Impact	.6%	.4%
Cold Stun Related	3.4%	.3%
Entangled in Fishing Line	.7%	.7%
Entangled in Fishing Net	.2%	.3%
Entangled in Non-Fishing Gear Materials	.3%	.2%
Rope(s) Tied to Flippers, Neck, or Body	.6%	.7%
Fishing Line Protruding From Mouth or Cloaca (Not Entangled)	.1%	.4%
Fishing Hook in Mouth	.1%	.3%
Plastic Ingestion (Non-Fishing Gear)	3.8%*	4.7%*
Fishing Hook in Digestive Tract	.8%*	.7%*
Fishing Line in Digestive Tract	.8%*	.7%*

* Rates of occurrence of anomalies observable only upon necropsy are expressed as a percentage of turtles necropsied (N=148).

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(August 1989)

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Table 1. Marine turtle strandings reported from 1 January - 31 December 1988 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	118	8	7	13	43	7	196
Louisiana	15	2	1	0	10	11	39
Mississippi	7	0	0	0	6	0	13
Alabama	11	0	1	0	5	6	23
Florida (Gulf)	157	35	1	2	12	6	213
Florida (Atlantic)	504	121	26	7	68	37	763
Georgia	160	5	2	0	37	8	212
South Carolina	92	0	1	1	6	6	106
North Carolina	158	20	1	0	11	3	193
Virginia	120	2	3	0	13	4	142
New Jersey	18	0	7	0	0	0	25
New York	14	0	14	0	2	1	31
Rhode Island	1	0	1	0	0	0	2
Massachusetts	5	0	13	0	4	1	23
Puerto Rico	0	3	0	1	0	0	4
U.S. Virgin Islands	0	2	1	3	0	0	6
TOTAL	1380	198	79	27	217	90	1991

*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 1988 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	3	5	16	54	40	11	11	8	9	10	17	12	196
Louisiana	3	2	3	1	6	12	8	1	0	1	0	2	39
Mississippi	0	0	0	1	0	2	0	0	2	2	6	0	13
Alabama	0	0	0	1	0	4	4	0	3	1	10	0	23
Florida (Gulf)	3	5	19	26	42	16	32	21	8	13	13	15	213
Florida (Atl)	36	39	71	49	87	57	59	108	65	52	78	62	763
Georgia	1	0	0	5	28	36	26	34	31	23	24	4	212
South Carolina	0	0	0	2	15	2	43	27	10	5	2	0	106
North Carolina	4	0	2	4	31	38	15	5	5	25	32	32	193
Virginia	0	0	1	1	16	59	19	9	15	13	8	1	142
New Jersey	0	0	0	0	2	1	3	8	9	2	0	0	25
New York	3	0	0	0	2	0	3	9	7	3	3	1	31

(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	1	0	0	1	0	2
Massachusetts	2	0	0	0	0	1	2	8	0	2	3	5	23
Puerto Rico	1	0	0	0	0	0	0	0	1	2	0	0	4
Virgin Islands	0	0	2	1	1	0	0	1	0	0	0	1	6
TOTAL	56	51	114	145	270	239	225	240	165	154	197	135	1991

Table 3. Marine turtle strandings reported from 1 January - 31 December 1988 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	34	26	65	110	194	196	182	200	122	87	95	69	1380
C. mydas	12	17	29	17	34	9	11	13	8	13	16	19	198
D. coriacea	2	3	4	1	8	6	3	12	6	16	13	5	79
E. imbricata	0	1	2	1	4	4	3	0	4	2	2	4	27
L. kempi	3	3	11	12	17	13	13	7	13	28	62	35	217
Unidentified	5	1	3	4	13	11	13	8	12	8	9	3	90
TOTAL	56	51	114	145	270	239	225	240	165	154	197	135	1991

Table 5(a). Marine turtle strandings reported from LOUISISANA, 1 January - 31 December 1988 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	1	1	1	0	1	6	3	0	0	1	0	1	15
C. mydas	0	1	0	0	0	1	0	0	0	0	0	0	2
D. coriacea	0	0	0	0	0	0	0	1	0	0	0	0	1
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	2	1	2	2	2	0	0	0	0	1	10
Unidentified	2	0	0	0	3	3	3	0	0	0	0	0	11
TOTAL	3	2	3	1	6	12	8	1	0	1	0	2	39

Table 5(b). Marine turtle strandings reported from LOUISIANA, 1 January - 31 December 1988 by parish and month of occurrence. All species are combined. Only parishes from which strandings were reported are included.

COUNTY	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
St. Bernard	0	0	0	0	1	3	6	0	0	0	0	2	12
Plaquemines	0	0	0	0	0	6	1	0	0	0	0	0	7
Jefferson	0	0	0	0	0	1	0	0	0	0	0	0	1
Lafourche	0	1	0	0	0	0	0	0	0	0	0	0	1
Terrebone	1	1	3	0	3	2	0	1	0	0	0	0	11
Iberia	2	0	0	1	1	0	1	0	0	0	0	0	5
Cameron	0	0	0	0	1	0	0	0	0	1	0	0	2
TOTAL	3	2	3	1	6	12	8	1	0	1	0	2	39

Table 6(a). Marine turtle strandings reported from MISSISSIPPI, 1 January - 31 December 1988 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	0	1	0	0	1	1	3	0	7
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	1	0	0	1	1	3	0	6
Unidentified	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	0	2	0	0	2	2	6	0	13

Table 6(b). Marine turtle strandings reported from MISSISSIPPI, 1 January - 31 December 1988 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	1	0	0	0	1	2	0	5
Harrison	0	0	0	0	0	0	0	0	1	1	4	0	6
Hancock	0	0	0	0	0	1	0	0	1	0	0	0	2
TOTAL	0	0	0	1	0	2	0	0	2	2	6	0	13

Table 7(a). Marine turtle strandings reported from ALABAMA, 1 January - 31 December 1988 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	0	3	2	0	1	1	3	0	11
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	0	1	0	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	0	0	0	1	0	1	0	3	0	5
Unidentified	0	0	0	0	0	0	1	0	1	0	4	0	6
TOTAL	0	0	0	1	0	4	4	0	3	1	10	0	23

Table 7(b). Marine turtle strandings reported from ALABAMA, 1 January - 31 December 1988 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	1	3	0	0	1	5	0	10
Mobile	0	0	0	1	0	3	1	0	3	0	5	0	13
TOTAL	0	0	0	1	0	4	4	0	3	1	10	0	23

Table 8(a). Marine turtle strandings reported from FLORIDA(GULF), 1 January - 31 December 1988 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	1	1	7	23	36	13	29	18	5	10	9	5	157
C. mydas	0	4	9	3	3	1	1	2	1	3	2	6	35
D. coriacea	0	0	1	0	0	0	0	0	0	0	0	0	1
E. imbricata	0	0	0	0	1	0	0	0	0	0	1	0	2
L. kempi	0	0	1	0	2	2	1	0	2	0	0	4	12
Unidentified	2	0	1	0	0	0	1	1	0	0	1	0	6
TOTAL	3	5	19	26	42	16	32	21	8	13	13	15	213

Table 8(b). Marine turtle strandings reported from FLORIDA(GULF), 1 January - 31 December 1988 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	1	3	4	3	2	2	1	6	2	4	3	6	37
Collier	1	0	0	2	3	0	0	1	0	0	0	0	7
Lee	1	1	4	2	7	1	2	1	1	1	3	1	25
Charlotte	0	0	2	1	1	0	0	1	0	0	0	0	5
Sarasota	0	0	1	5	8	0	6	2	0	1	1	0	24
Manatee	0	0	0	7	2	2	4	1	1	1	0	1	19
Pinellas	0	1	6	6	12	1	5	1	2	1	2	4	41
Franklin	0	0	0	0	1	2	1	0	0	0	0	0	4
Gulf	0	0	1	0	1	1	7	4	0	4	3	1	22
Bay	0	0	0	0	1	6	1	1	0	0	1	1	11
Walton	0	0	1	0	0	0	1	2	0	0	0	0	4
Okaloosa	0	0	0	0	0	0	4	0	0	1	0	0	5
Escambia	0	0	0	0	1	1	0	1	1	0	0	1	5
Hillsborough	0	0	0	0	3	0	0	0	1	0	0	0	4
TOTAL	3	5	19	26	42	16	32	21	8	13	13	15	213

Table 9(a). Marine turtle strandings reported from FLORIDA(ATLANTIC), 1 January - 31 December 1988 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	23	22	43	36	50	48	42	95	50	31	32	32	504
C. mydas	10	12	19	10	27	4	10	9	6	3	8	3	121
D. coriacea	1	3	2	0	1	1	0	0	2	9	6	1	26
E. imbricata	0	1	1	1	0	2	2	0	0	0	0	0	7
L. kempi	1	0	5	0	0	0	3	2	2	3	29	23	68
Unidentified	1	1	1	2	9	2	2	2	5	6	3	3	37
TOTAL	36	39	71	49	87	57	59	108	65	52	78	62	763

Table 9(b). Marine turtle strandings reported from FLORIDA(ATLANTIC), 1 January - 31 December 1988 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	3	11	3	8	14	5	3	36	1	84
Duval	0	2	0	9	3	13	9	20	7	5	8	15	91
St. John's	6	1	2	6	1	10	8	19	13	11	11	10	98
Flagler	3	0	5	4	1	2	2	6	10	6	6	5	50
Volusia	3	3	12	5	7	7	11	12	7	20	6	21	114
Brevard	7	4	18	8	12	6	4	12	4	0	3	3	81
Indian River	0	0	2	0	6	1	0	3	2	0	0	0	14
St. Lucie	2	18	18	5	30	5	6	12	5	2	4	1	108
Martin	5	8	3	3	7	0	3	2	5	1	0	3	40
Palm Beach	5	3	4	2	4	3	2	3	1	1	3	0	31
Broward	3	0	3	2	3	3	3	3	4	1	0	2	27
Dade	2	0	2	2	1	3	2	2	1	1	1	0	17
Monroe	0	0	2	0	1	1	1	0	1	1	0	1	8
TOTAL	36	39	71	49	87	57	59	108	65	52	78	62	763

Table 10(a). Marine turtle strandings reported from GEORGIA, 1 January - 31 December 1988 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	4	27	28	24	30	25	12	9	1	160
C. mydas	1	0	0	0	1	0	0	0	1	0	2	0	5
D. coriacea	0	0	0	0	0	1	0	0	0	1	0	0	2
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	1	0	6	1	2	2	10	12	3	37
Unidentified	0	0	0	0	0	1	1	2	3	0	1	0	8
TOTAL	1	0	0	5	28	36	26	34	31	23	24	4	212

Table 10(b). Marine turtle strandings reported from GEORGIA, 1 January - 31 December 1988 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	1	0	0	1	5	10	4	12	6	5	0	1	45
Liberty	0	0	0	0	0	4	0	0	1	1	1	1	8
McIntosh	0	0	0	0	0	4	4	4	4	0	2	0	18
Glynn	0	0	0	0	15	12	10	12	11	8	4	0	72
Camden	0	0	0	4	8	6	8	6	9	9	17	2	69
TOTAL	1	0	0	5	28	36	26	34	31	23	24	4	212

Table 11(a). Marine turtle strandings reported from SOUTH CAROLINA, 1 January - 31 December 1988 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	12	1	40	25	9	3	1	0	92
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
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	1	1	0	0	1	1	1	1	0	6
Unidentified	0	0	0	0	0	1	3	1	0	1	0	0	6
TOTAL	0	0	0	2	15	2	43	27	10	5	2	0	106

Table 11(b). Marine turtle strandings reported from SOUTH CAROLINA, 1 January - 31 December 1988 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	1	8	0	0	2	3	1	1	0	16
Georgetown	0	0	0	0	1	0	7	3	0	0	0	0	11
Charlestown	0	0	0	0	6	1	8	11	1	4	0	0	31
Colleton	0	0	0	0	0	0	3	5	0	0	0	0	8
Beaufort	0	0	0	1	0	1	25	6	6	0	1	0	40
TOTAL	0	0	0	2	15	2	43	27	10	5	2	0	106

Table 12(a). Marine turtle strandings reported from NORTH CAROLINA, 1 January - 31 December 1988 by species and month of occurrence.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	4	0	0	4	28	36	13	4	4	16	27	22	158
C. mydas	0	0	0	0	2	1	0	1	0	4	3	9	20
D. coriacea	0	0	0	0	0	1	0	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	2	0	0	0	1	0	0	5	2	1	11
Unidentified	0	0	0	0	1	0	1	0	1	0	0	0	3
TOTAL	4	0	2	4	31	38	15	5	5	25	32	32	193

Table 12(b). Marine turtle strandings reported from NORTH CAROLINA, 1 January - 31 December 1988 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	4	0	0	0	7	2	0	13
Dare	2	0	0	0	6	6	2	1	0	3	18	9	47
Hyde	0	0	0	1	0	2	0	0	0	0	0	0	3
Carteret	1	0	2	0	8	16	7	2	3	13	12	23	87
Onlsow	0	0	0	0	2	0	1	0	0	0	0	0	3
Pender	0	0	0	0	0	1	0	0	0	0	0	0	1
New Hanover	0	0	0	0	1	1	0	0	0	0	0	0	2
Brunswick	1	0	0	3	14	5	5	2	2	1	0	0	33
Beaufort	0	0	0	0	0	2	0	0	0	0	0	0	2
Pamlico	0	0	0	0	0	1	0	0	0	1	0	0	2
TOTAL	4	0	2	4	31	38	15	5	5	25	32	32	193

Table 13(a). Marine turtle strandings reported from VIRGINIA, 1 January - 31 December 1988 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	1	1	16	54	17	8	12	5	5	1	120
C. mydas	0	0	0	0	0	0	0	0	0	1	1	0	2
D. coriacea	0	0	0	0	0	1	1	1	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	7	2	0	13
Unidentified	0	0	0	0	0	2	0	0	2	0	0	0	4
TOTAL	0	0	1	1	16	59	19	9	15	13	8	1	142

Table 13(b). Marine turtle strandings reported from VIRGINIA, 1 January - 31 December 1988 by county/city and month of occurrence. Coastal areas in Virginia include counties and independent cities. All species are combined. Only counties/cities 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	5	1	0	0	0	0	0	6
Gloucester	0	0	0	0	0	3	7	2	0	1	0	0	13
James City	0	0	0	0	0	1	0	0	0	0	0	0	1
Lancaster	0	0	0	0	0	0	0	0	1	0	0	0	1
Mathews	0	0	0	0	1	3	0	1	3	0	0	0	8
Middlesex	0	0	0	0	0	4	0	0	0	0	0	0	4
Northampton	0	0	0	0	0	3	0	0	0	0	4	1	8
Northumberland	0	0	0	0	0	1	1	0	0	0	0	0	2
York	0	0	0	1	1	3	3	2	3	0	0	0	13
Hampton	0	0	1	0	1	8	0	1	2	2	0	0	15
Newport News	0	0	0	0	0	2	0	0	0	0	0	0	2
Norfolk	0	0	0	0	3	7	1	0	1	1	0	0	13
Virginia Beach	0	0	0	0	10	19	6	3	5	9	4	0	56
TOTAL	0	0	1	1	16	59	19	9	15	13	8	1	142

Table 14(a). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1988 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	3	6	7	2	0	0	18
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	2	1	0	2	2	0	0	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	0	2	1	3	8	9	2	0	0	25

Table 14(b). Marine turtle strandings reported from NEW JERSEY, 1 January - 31 December 1988 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
Atlantic	0	0	0	0	0	0	0	0	2	0	0	0	2
Cape May	0	0	0	0	1	0	1	3	2	2	0	0	9
Cumberland	0	0	0	0	0	0	2	0	0	0	0	0	2
Monmouth	0	0	0	0	0	0	0	2	3	0	0	0	5
Ocean	0	0	0	0	1	1	0	3	2	0	0	0	7
TOTAL	0	0	0	0	2	1	3	8	9	2	0	0	25

Table 15(a). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1988 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	0	0	2	5	5	1	0	0	14
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	2	0	1	3	2	2	3	1	14
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	2	0	0	0	0	0	0	0	0	0	0	0	2
Unidentified	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	3	0	0	0	2	0	3	9	7	3	3	1	31

Table 15(b). Marine turtle strandings reported from NEW YORK, 1 January - 31 December 1988 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
Bronx	0	0	0	0	0	0	0	1	0	0	0	0	1
Kings	0	0	0	0	0	0	0	1	1	0	0	0	2
Nassau	0	0	0	0	1	0	0	2	1	0	1	1	6
Queens	0	0	0	0	0	0	0	1	0	0	0	0	1
Richmond	0	0	0	0	0	0	1	1	1	0	0	0	3
Suffolk	3	0	0	0	1	0	2	3	4	3	2	0	18
TOTAL	3	0	0	0	2	0	3	9	7	3	3	1	31

Table 16(a). Marine turtle strandings reported from RHODE ISLAND, 1 January - 31 December 1988 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	1	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	1	0	0	1	0	2

Table 16(b). Marine turtle strandings reported from RHODE ISLAND, 1 January - 31 December 1988 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
Newport	0	0	0	0	0	0	0	1	0	0	1	0	2
TOTAL	0	0	0	0	0	0	0	1	0	0	1	0	2

Table 17(a). Marine turtle strandings reported from MASSACHUSETTS, 1 January - 31 December 1988 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	0	1	0	2	0	0	0	1	5
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	1	0	0	0	0	0	1	5	0	2	1	3	13
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	0	0	0	0	0	1	0	0	2	1	4
Unidentified	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL	2	0	0	0	0	1	2	8	0	2	3	5	23

Table 17(b). Marine turtle strandings reported from MASSACHUSETTS, 1 January - 31 December 1988 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
Barnstable	1	0	0	0	0	1	2	6	0	1	3	3	17
Dukes	1	0	0	0	0	0	0	2	0	1	0	2	6
TOTAL	2	0	0	0	0	1	2	8	0	2	3	5	23

Table 18. Marine turtle strandings reported from PUERTO RICO, 1 January - 31 December 1988 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	2	0	0	3
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	1	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	1	0	0	0	0	0	0	0	1	2	0	0	4

Table 19. Marine turtle strandings reported from the U.S. VIRGIN ISLANDS, 1 January - 31 December 1988 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	0	0	0	1	0	0	0	0	2
D. coriacea	0	0	1	0	0	0	0	0	0	0	0	0	1
E. imbricata	0	0	1	0	1	0	0	0	0	0	0	1	3
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	2	1	1	0	0	1	0	0	0	1	6

Table 20. Marine turtle strandings reported from Gulf Region, 1 January - 31 December 1988 by month and zone of occurrence.

STATISTICAL ZONES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Zone 1	0	2	1	0	0	0	1	3	1	4	2	4	18
Zone 2	0	0	0	0	0	0	0	0	0	0	1	0	1
Zone 3	0	0	0	3	0	0	0	0	0	0	0	0	3
Zone 4	2	1	6	4	10	1	2	3	1	1	3	1	35
Zone 5	0	1	5	15	24	3	15	3	4	3	2	3	78
Zone 6	0	0	2	3	2	0	0	1	0	0	1	2	11
Zone 7	0	0	0	0	1	0	0	0	0	0	0	0	1
Zone 8	0	0	1	0	2	9	9	5	0	4	4	2	36
Zone 9	0	0	1	0	0	0	5	2	0	1	0	0	9
Zone 10	0	0	0	0	1	2	2	1	1	0	5	1	13
Zone 11	0	0	0	2	1	12	8	0	4	3	11	2	43
Zone 12	0	0	0	0	0	2	1	0	1	0	0	0	4
Zone 13	0	0	0	0	0	1	0	0	0	0	0	0	1
Zone 14	1	2	3	0	3	2	0	1	0	0	0	0	12
Zone 15	2	0	0	1	1	0	1	0	0	0	0	0	5
Zone 16	0	0	0	0	0	0	0	0	0	0	0	0	0
Zone 17	0	0	0	0	1	0	0	0	0	1	0	0	2
Zone 18	0	0	0	4	1	0	1	0	2	4	7	2	21
Zone 19	2	1	5	10	11	2	1	1	1	1	7	0	42
Zone 20	0	3	9	32	25	8	4	7	6	4	2	9	109
Zone 21	1	1	2	8	3	1	5	0	0	1	1	1	24
Zone 24	1	1	2	1	2	2	0	3	1	0	0	2	15
Zone 25	0	0	1	0	0	0	0	0	0	0	0	0	1
TOTAL	9	12	38	83	88	45	55	30	22	27	46	29	484

Table 21. Marine turtle strandings reported from Southeast Region, 1 January - 31 December 1988 by month and zone of occurrence.

STATISTICAL ZONES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Zone 24	0	0	0	0	0	1	0	0	0	0	0	2	3
Zone 25	2	0	4	2	2	4	3	2	2	2	1	0	24
Zone 26	8	2	7	5	7	6	5	6	5	2	3	2	58
Zone 27	8	27	24	8	44	6	9	17	13	3	5	5	169
Zone 28	7	5	20	7	14	9	7	18	3	0	2	4	96
Zone 29	8	2	16	12	5	8	15	21	27	36	21	30	201
Zone 30	3	3	0	19	23	30	28	50	24	18	63	22	283
Zone 31	1	0	0	0	20	29	15	19	22	14	7	2	129
Zone 32	0	0	0	2	4	3	38	30	6	4	1	0	88
Zone 33	1	0	0	4	26	6	13	8	6	2	1	0	67
Zone 34	1	0	1	0	10	16	7	2	2	12	12	20	83
Zone 35	2	0	1	1	6	12	3	1	1	5	17	12	61
Zone 36	0	0	0	0	0	4	0	0	0	7	3	0	14
TOTAL	41	39	73	60	161	134	143	174	112	105	136	99	1277

Table 22. Marine turtle strandings reported from Northeast Region, 1 January - 31 December 1988 by month and zone of occurrence.

STATISTICAL ZONES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Zone 36	0	0	0	0	13	25	7	3	6	10	4	0	68
Zone 37	0	0	1	1	3	33	12	6	9	3	4	1	73
Zone 38	0	0	0	0	0	1	0	1	0	1	0	0	3
Zone 39	0	0	0	0	2	1	3	5	5	1	0	0	17
Zone 40	1	0	0	0	2	0	3	11	11	3	3	1	35
Zone 41	4	0	0	0	0	1	2	9	0	2	4	5	27
TOTAL	5	0	1	1	20	61	27	35	31	20	15	7	223

Table 23. Marine turtle strandings by species and month of occurrence for Zones 4 and 5. Sampling was conducted systematically throughout 1988.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	1	3	18	29	4	16	6	3	4	4	3	91
C. mydas	0	1	6	1	2	0	0	0	0	0	1	0	11
D. coriacea	0	0	0	0	0	0	0	0	0	0	0	0	0
E. imbricata	0	0	0	0	1	0	0	0	0	0	0	0	1
L. kempi	0	0	1	0	2	0	1	0	2	0	0	1	7
Unidentified	2	0	1	0	0	0	0	0	0	0	0	0	3
Total	2	2	11	19	34	4	17	6	5	4	5	4	113

Table 24. Marine turtle strandings by species and month of occurrence for Zones 17 thru 21. Sampling was conducted systematically throughout 1988.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	3	2	13	39	24	5	7	6	3	5	6	6	119
C. mydas	0	0	1	3	1	0	0	0	0	0	0	1	6
D. coriacea	0	0	0	1	2	0	0	0	0	2	2	0	7
E. imbricata	0	0	0	0	1	2	1	0	3	2	1	3	13
L. kempi	0	3	1	9	13	2	3	1	3	1	8	2	46
Unidentified	0	0	1	2	0	2	0	1	0	1	0	0	7
Total	3	5	16	54	41	11	11	8	9	11	17	12	198

Table 25. Marine turtle strandings by species and month of occurrence for Zones 28 and 29. Sampling was conducted systematically throughout 1988.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	12	6	27	17	14	16	18	35	28	22	18	19	232
C. mydas	2	0	1	0	0	0	0	1	1	0	1	0	6
D. coriacea	0	1	2	0	0	1	0	0	0	8	3	1	16
E. imbricata	0	0	0	0	0	0	0	0	0	0	0	0	0
L. kempi	0	0	5	0	0	0	3	2	0	1	0	11	22
Unidentified	1	0	1	2	5	0	1	1	1	5	1	3	21
Total	15	7	36	19	19	17	22	39	30	36	23	34	297

Table 26. Marine turtle strandings by species and month of occurrence for Zone 31. Sampling was conducted systematically throughout 1988.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	0	19	21	13	16	17	9	4	1	100
C. mydas	1	0	0	0	1	0	0	0	1	0	0	0	3
D. coriacea	0	0	0	0	0	1	0	0	0	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	6	1	2	1	4	2	1	17
Unidentified	0	0	0	0	0	1	1	1	3	0	1	0	7
Total	1	0	0	0	20	29	15	19	22	14	7	2	129

Table 27. Marine turtle strandings by species and month of occurrence for Zone 32. Sampling was conducted systematically throughout 1988.

SPECIES	MONTH												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C. caretta	0	0	0	1	2	2	36	28	6	2	1	0	78
C. mydas	0	0	0	0	0	0	0	0	0	0	0	0	0
D. coriacea	0	0	0	0	1	0	0	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	0	0	1	0	1	0	0	4
Unidentified	0	0	0	0	0	1	2	1	0	1	0	0	5
Total	0	0	0	2	4	3	38	30	6	4	1	0	88

Table 28. Strandings of headstarted turtles reported through the STSSN, 1 January - 31 December 1988.

Species: *Chelonia mydas*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Florida (Atl)	0	0	1	0	1	0	0	0	0	0	0	0	2
Florida (Glf)	0	0	0	0	1	0	0	0	1	1	1	0	4
TOTAL	0	0	1	0	2	0	0	0	1	1	1	0	6

Species: *Lepidochelys kempi*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Florida (Glf)	0	0	1	0	0	1	0	0	0	0	0	0	2
Louisiana	0	0	0	0	0	2	0	1	1	0	0	0	4
Texas	1	1	0	2	2	5	3	0	0	1	0	0	15
TOTAL	1	1	1	2	2	8	3	1	1	1	0	0	21

Species: *Caretta caretta*

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Texas	0	0	0	0	0	1	0	0	0	0	1	0	2
TOTAL	0	0	0	0	0	1	0	0	0	0	1	0	2

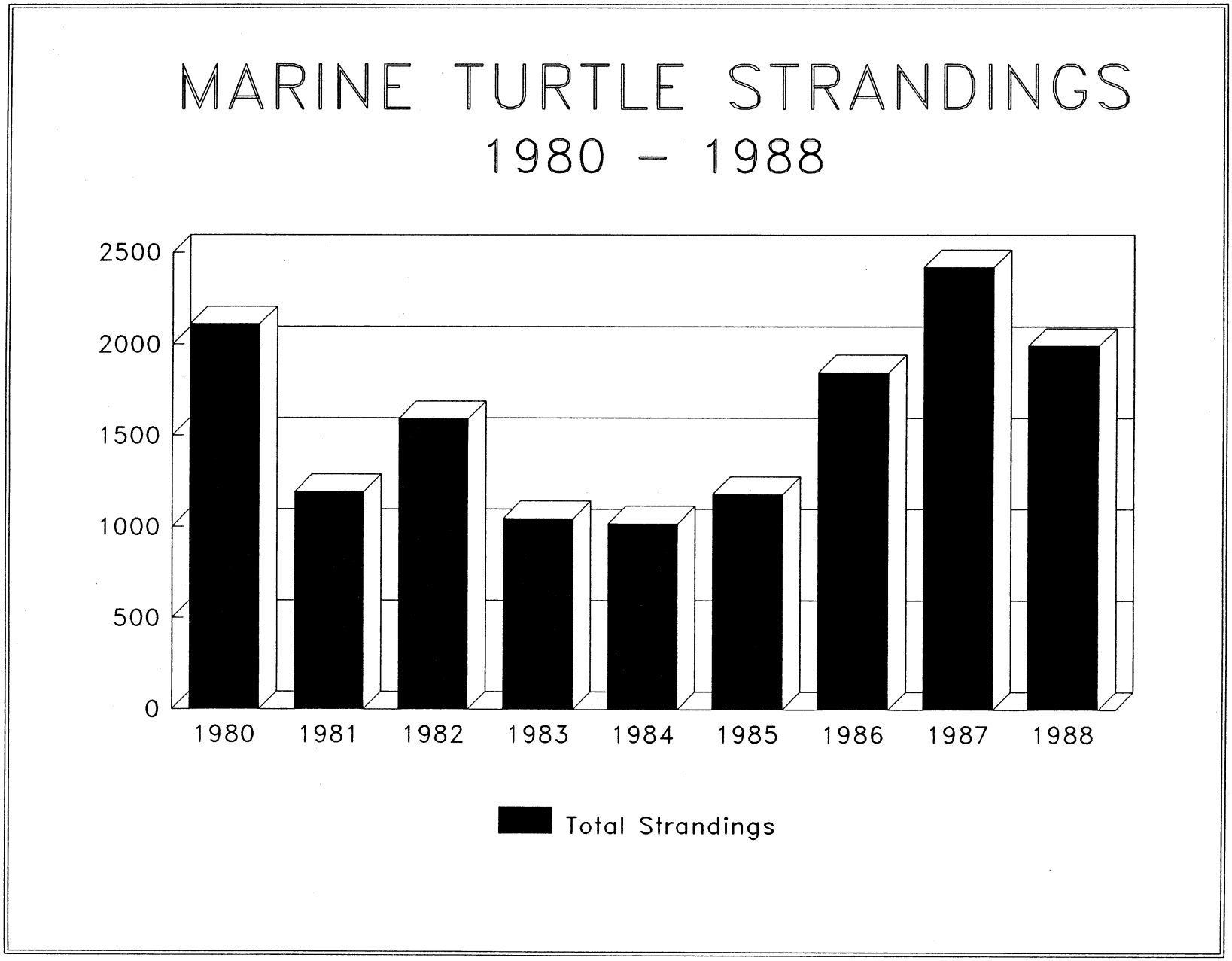


Figure 1. Marine turtle strandings reported annually from the U.S. Atlantic and Gulf of Mexico, 1980 - 1988. All species are combined.

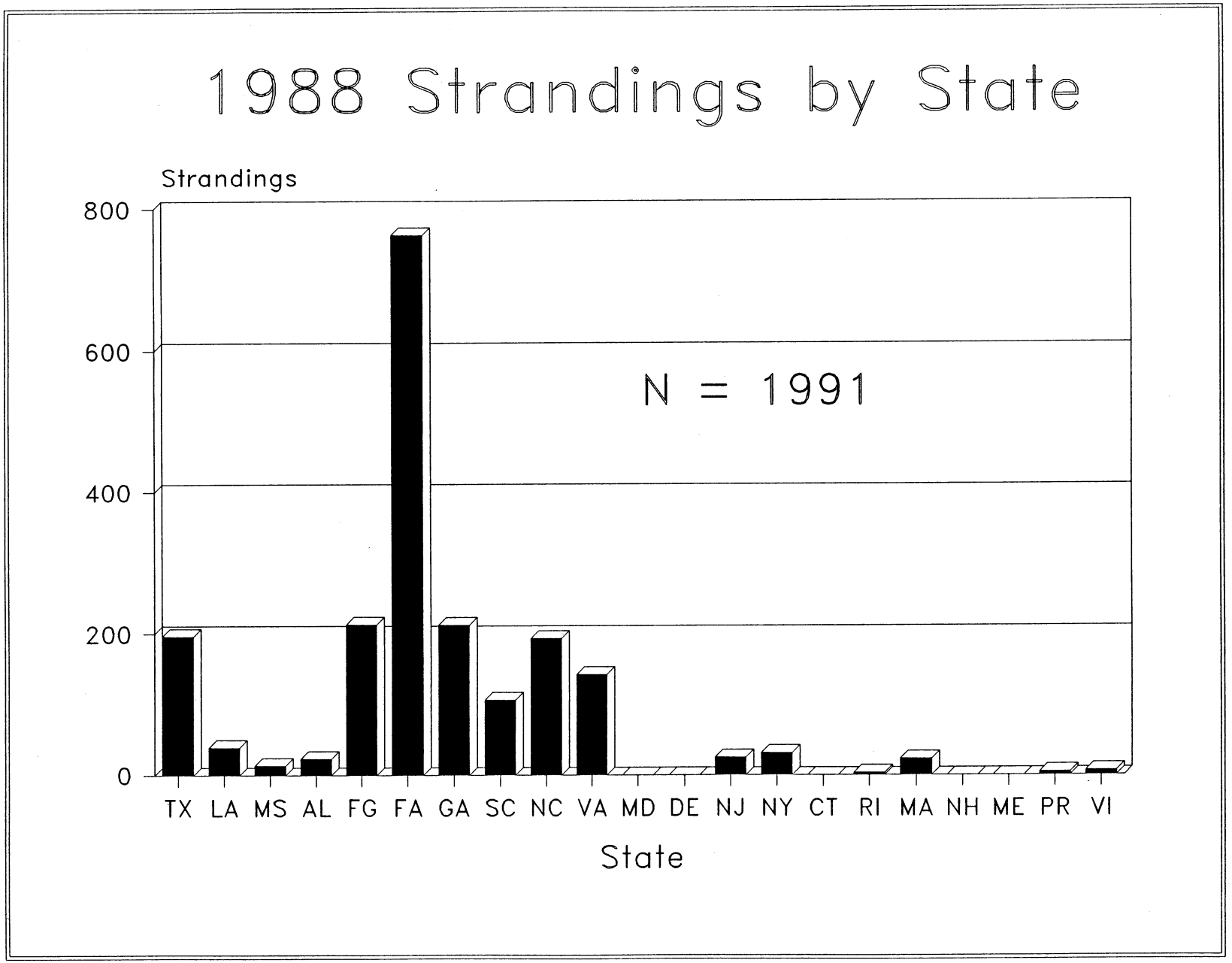


Figure 2. Marine turtle strandings reported from the U.S. Atlantic and Gulf of Mexico, 1988. FG = Florida(Gulf), FA = Florida(Atlantic).

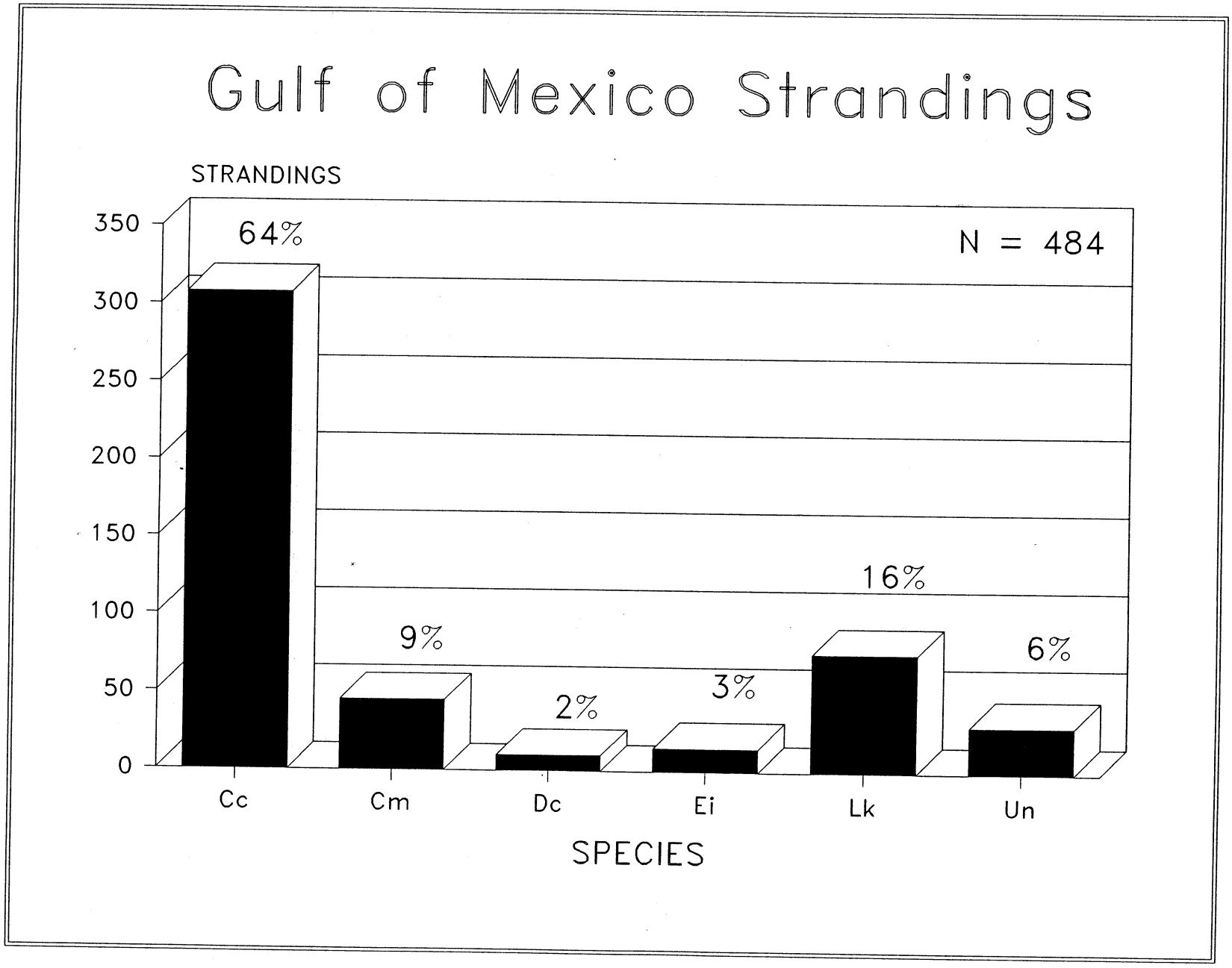


Figure 3. Species composition of stranded marine turtles reported from the Gulf of Mexico, 1988.

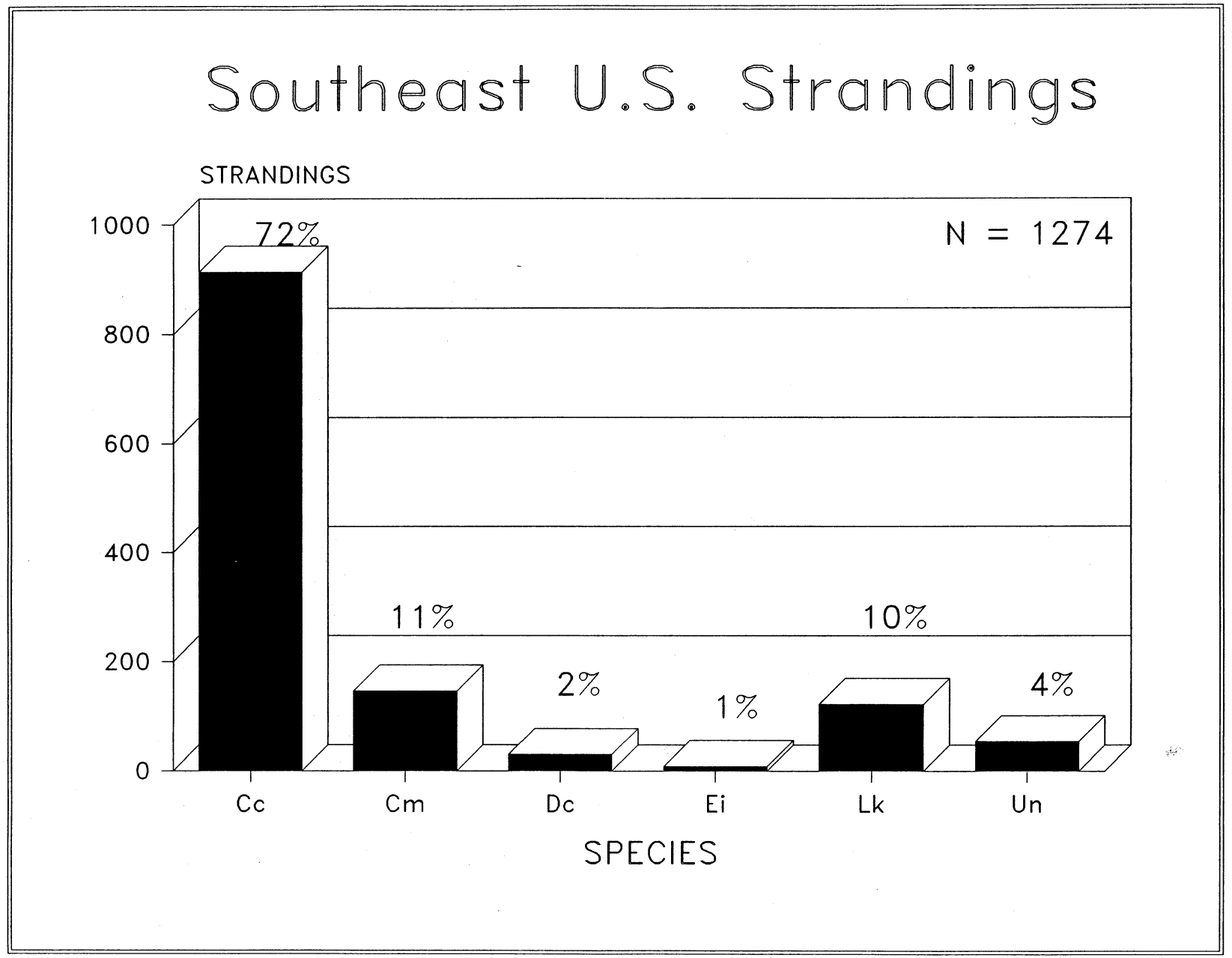


Figure 4. Species composition of stranded marine turtles reported from the southeast U.S. Atlantic, 1988.

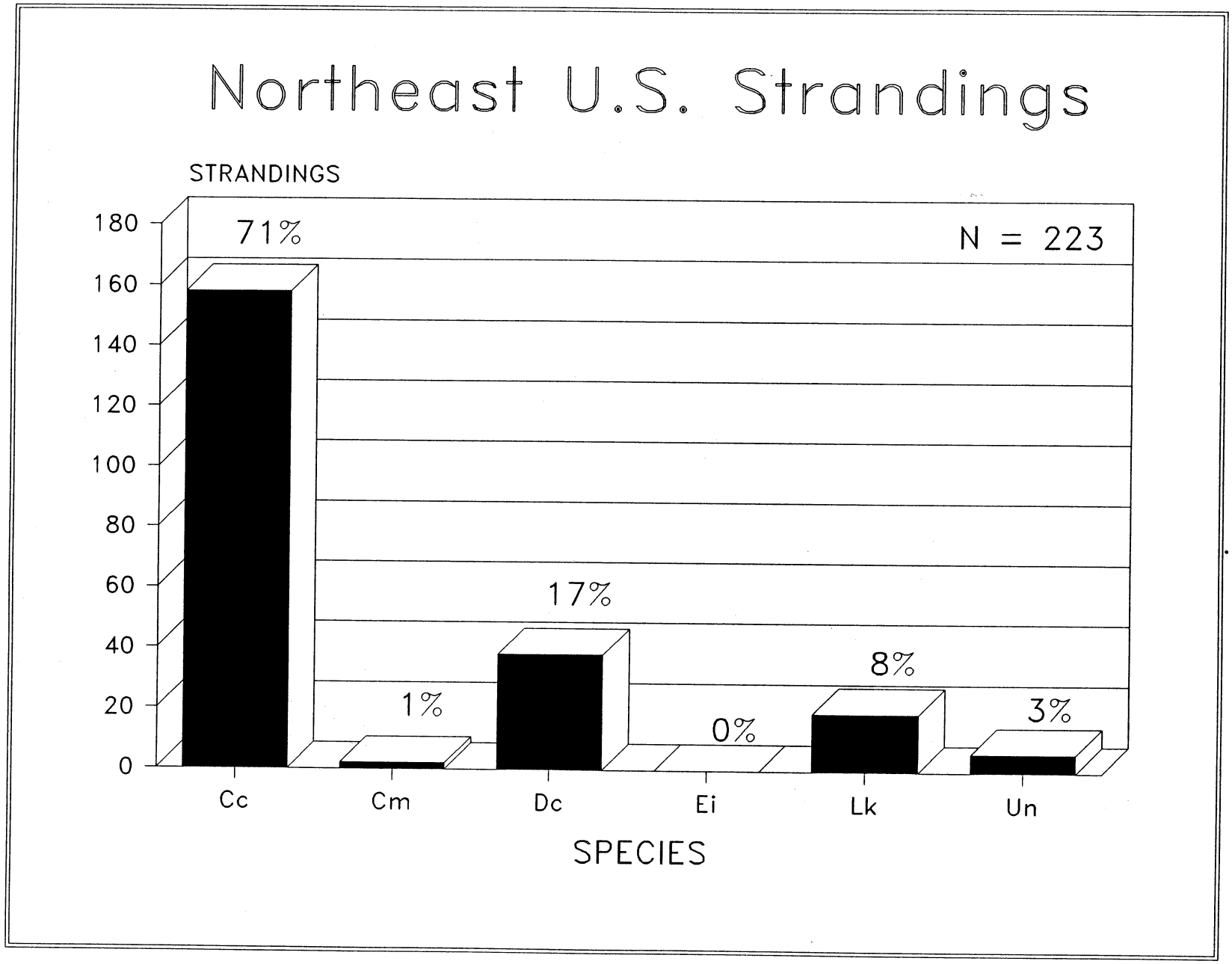
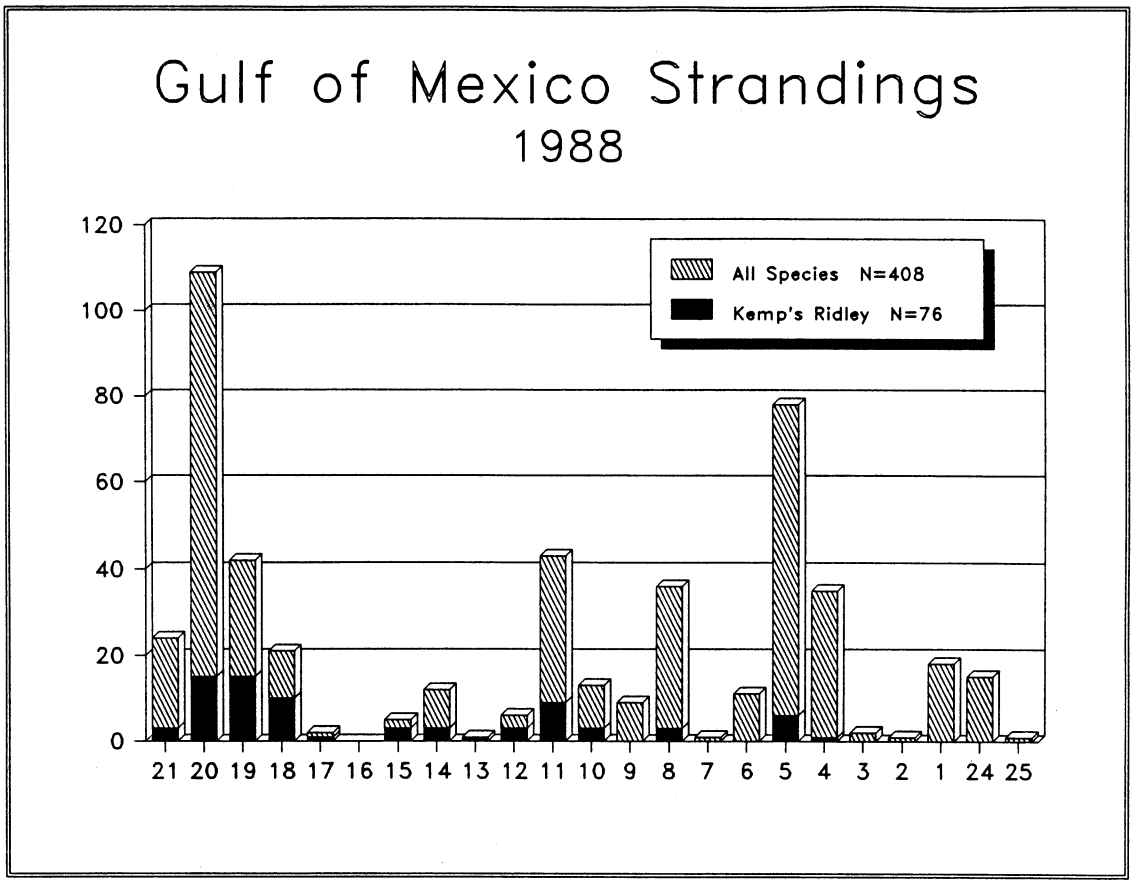


Figure 5. Species composition of stranded marine turtles reported from the northeast U.S. Atlantic, 1988.



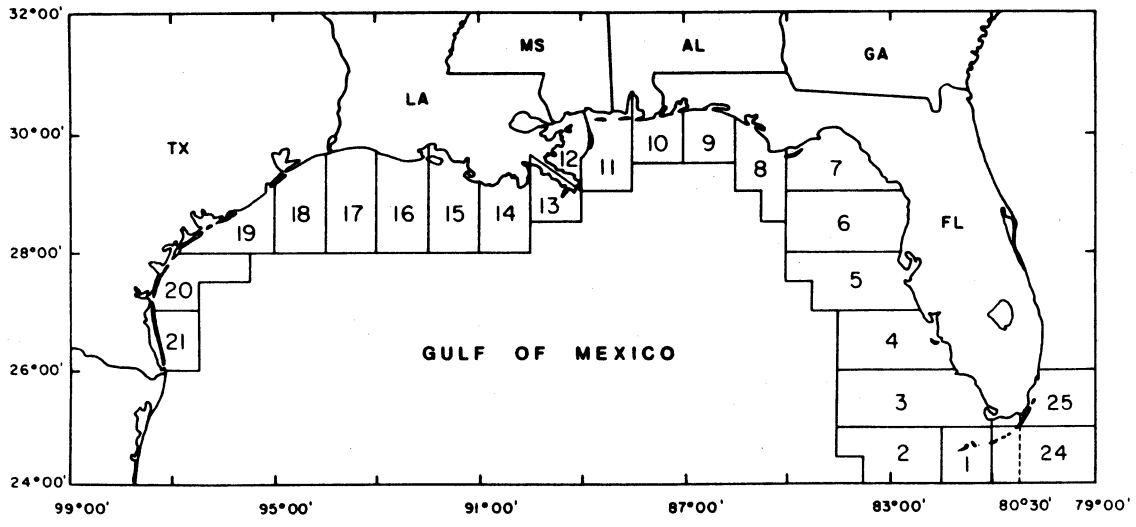
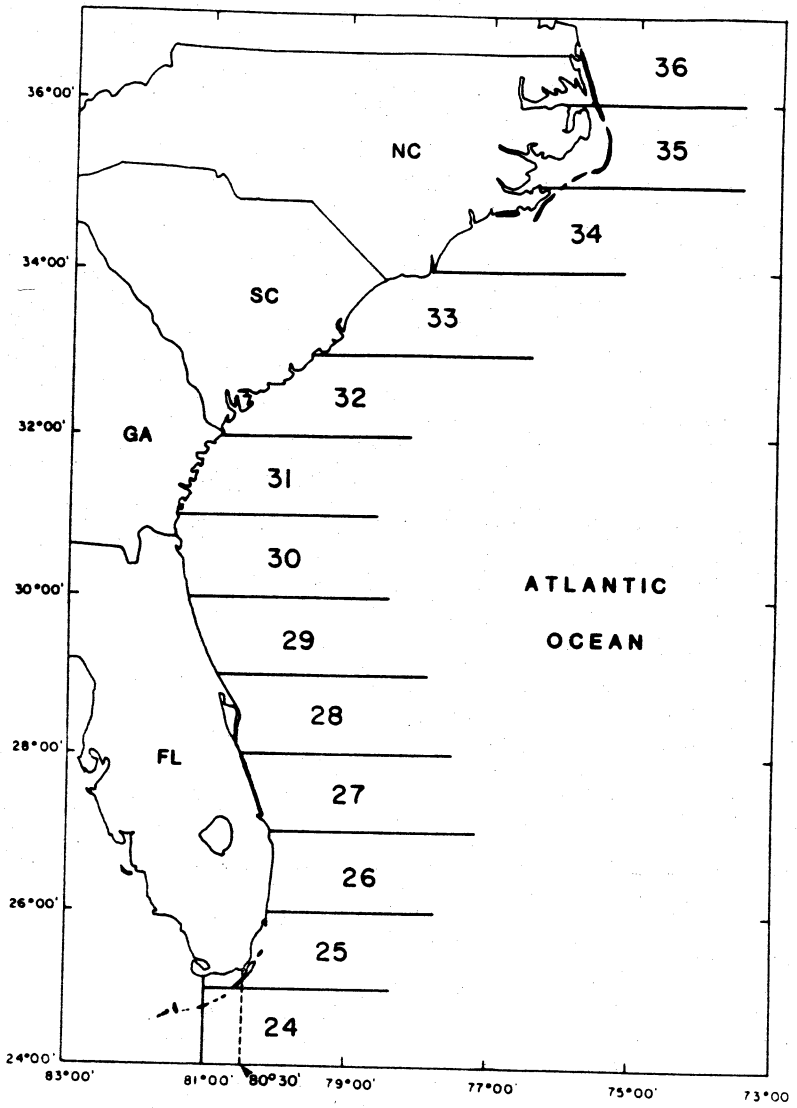


Figure 6. Marine turtle strandings reported from the Gulf of Mexico by statistical zone, 1988.



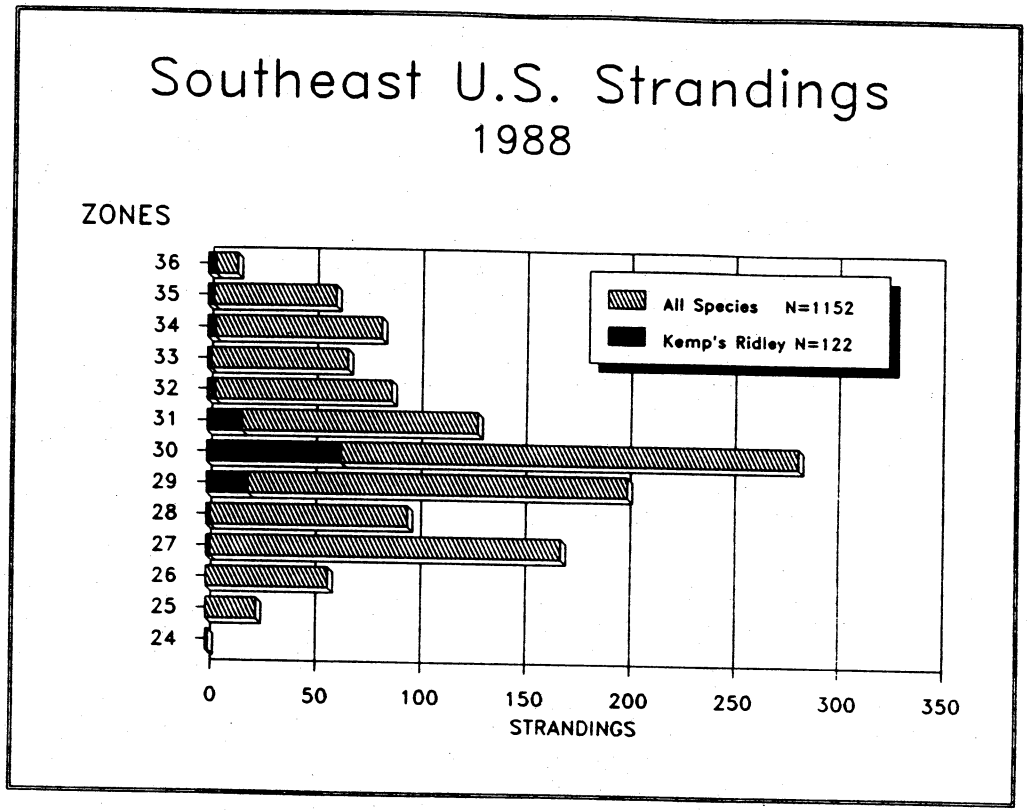
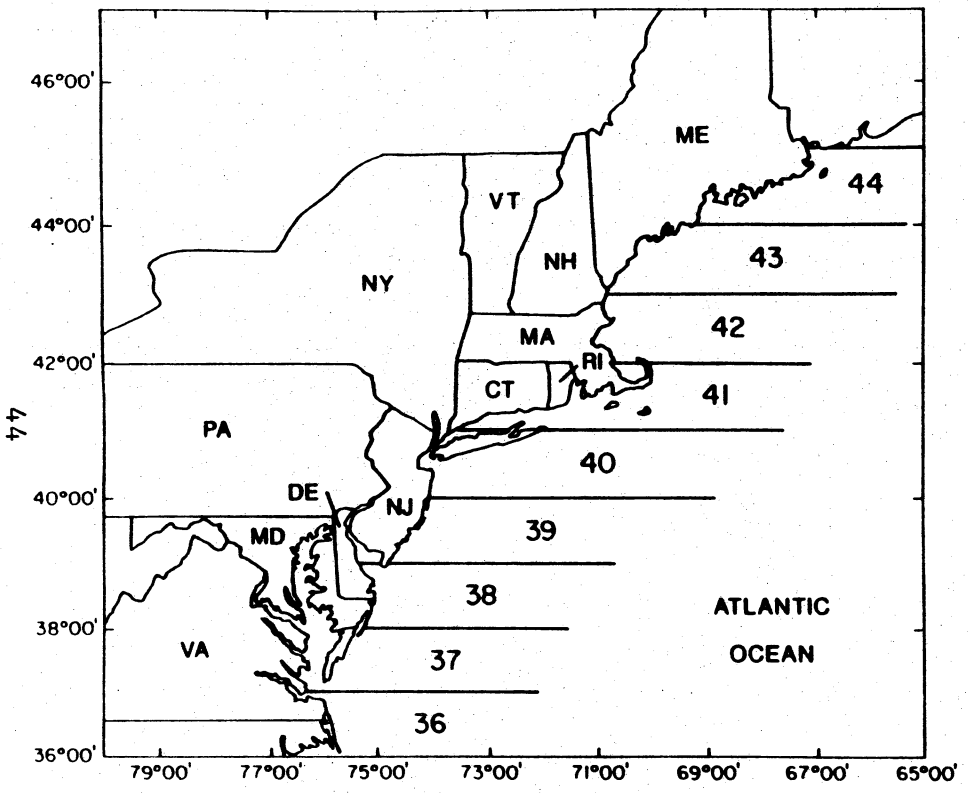


Figure 7. Marine turtle strandings reported from the southeast U.S. Atlantic by statistical zone, 1988.



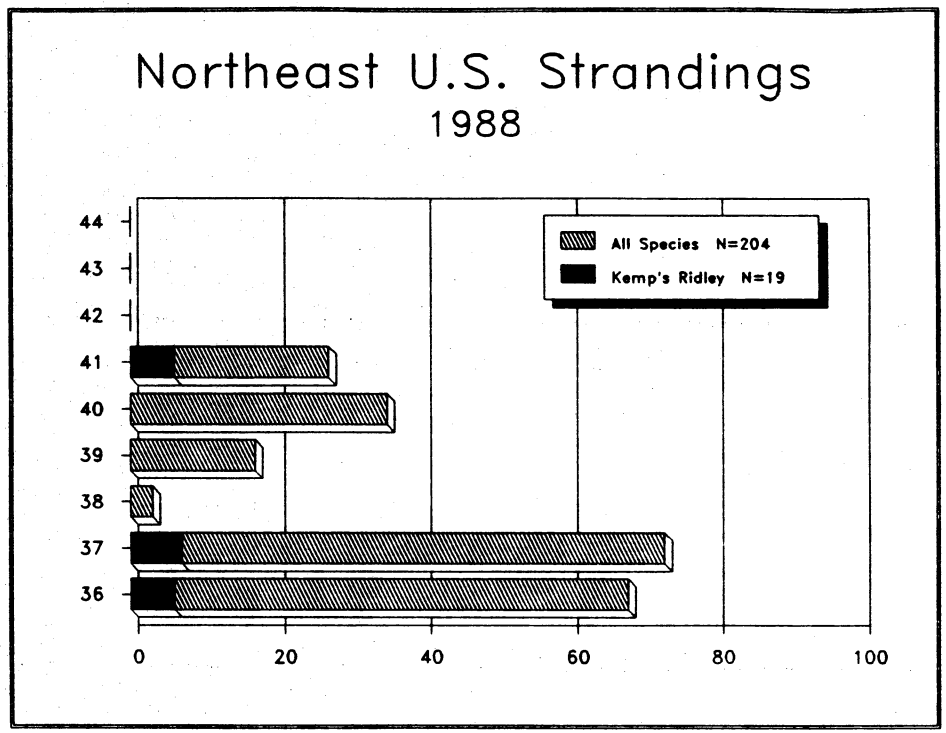


Figure 8. Marine turtle strandings reported from the northeast U.S. Atlantic by statistical zone, 1988.

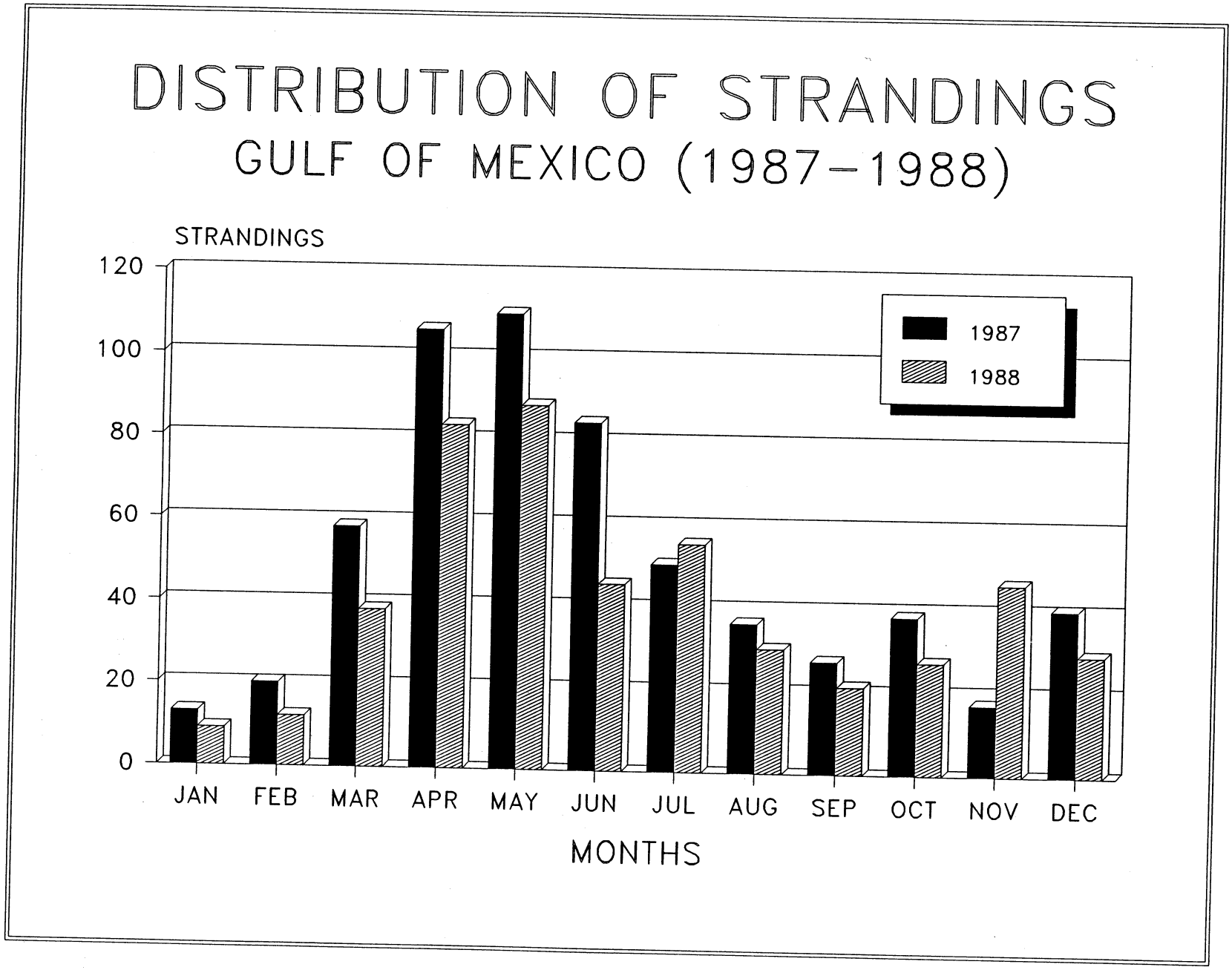


Figure 9. Monthly distribution of marine turtle strandings reported from the Gulf of Mexico, 1987 and 1988. All species are combined.

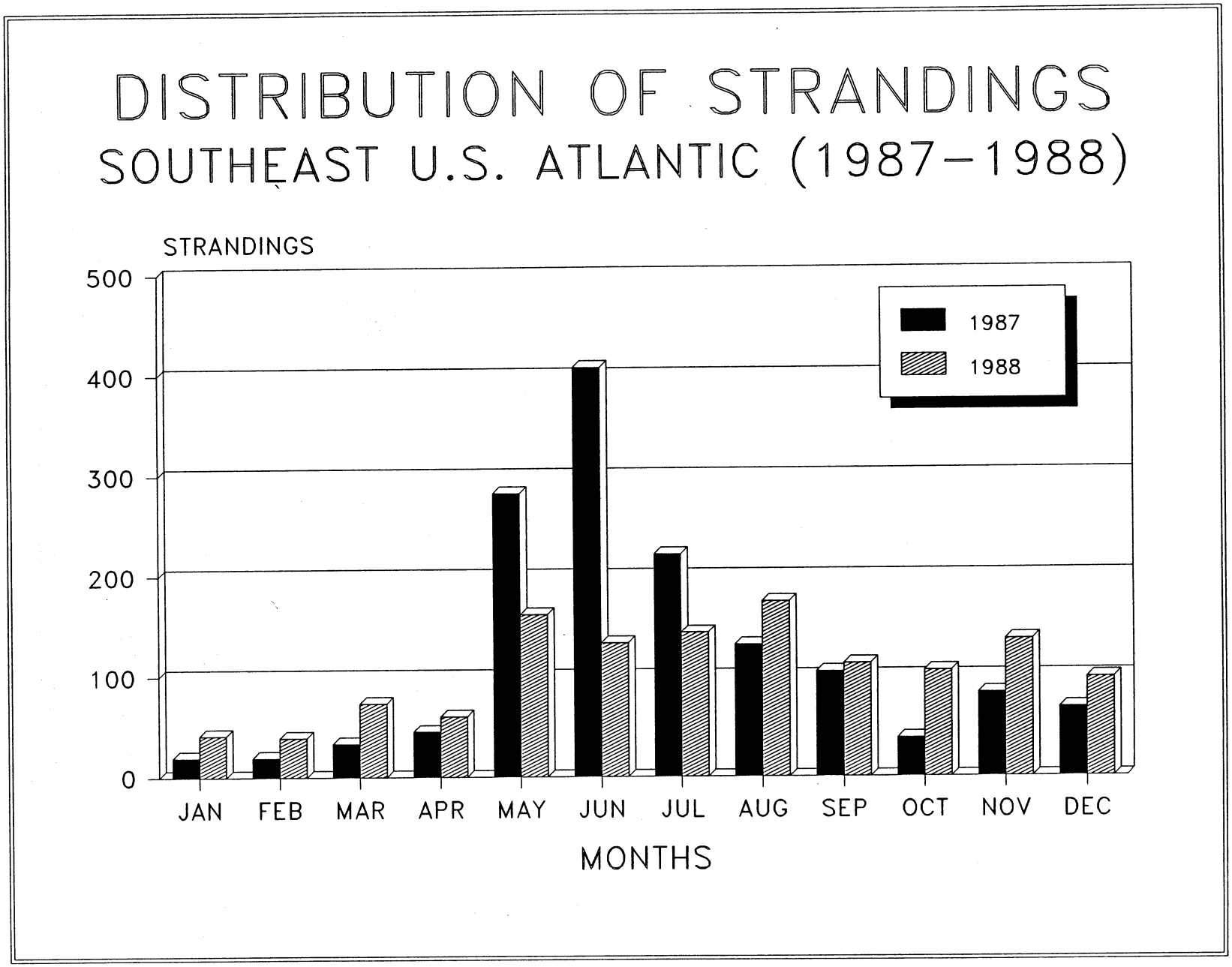


Figure 10. Monthly distribution of marine turtle strandings reported from the southeast U.S. Atlantic, 1987 and 1988. All species are combined.

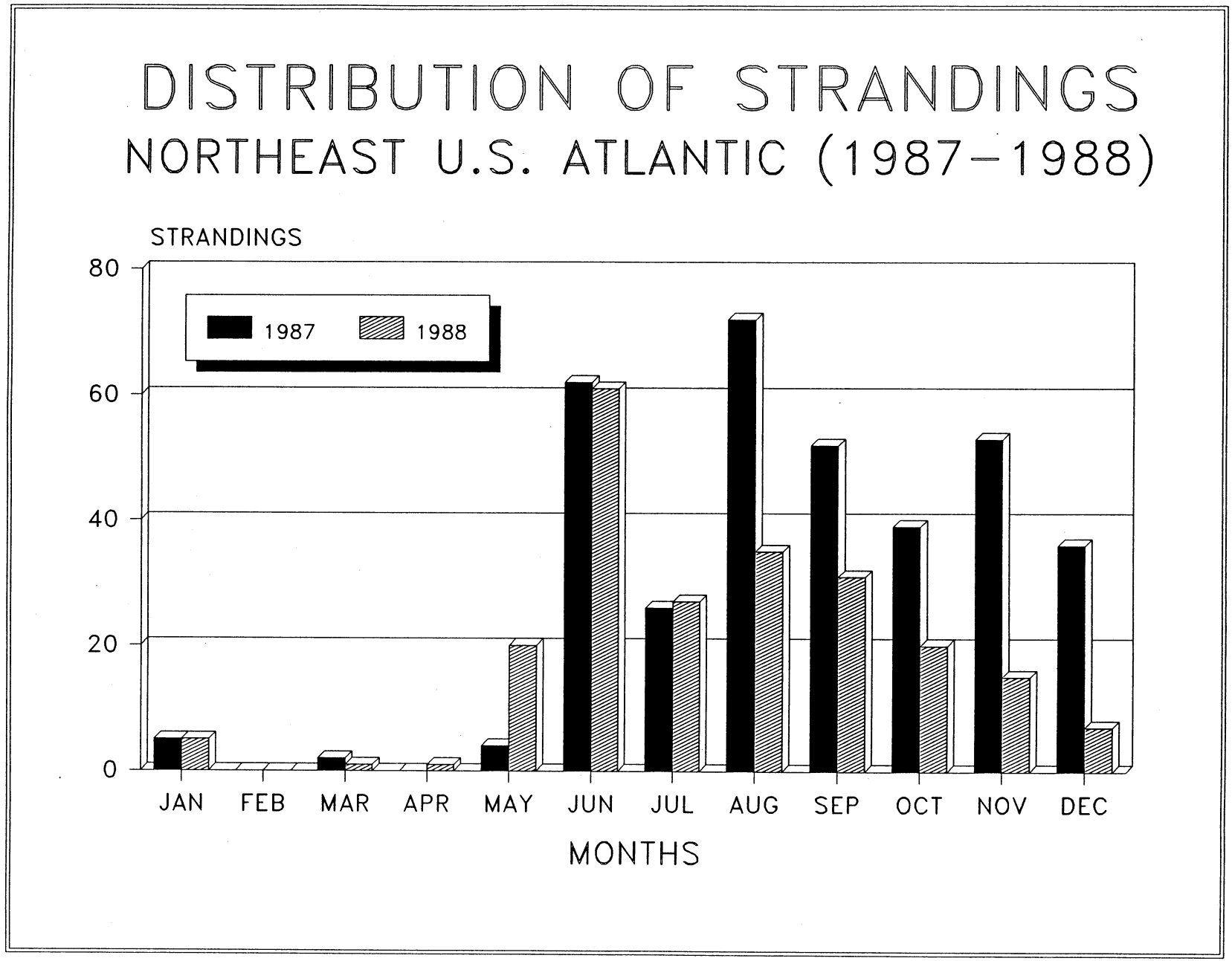


Figure 11. Monthly distribution of marine turtle strandings reported from the northeast U.S. Atlantic, 1987 and 1988. All species are combined.