

**SHARK
HUNTER
...FOR HIRE**

HAWAII FISHING NEWS



**A HISTORY OF
SHARK CONTROL
IN HAWAII'S
WATERS**

SHARK ATTACK!

**JR. PALACAT
LANDS HIS 4TH
100-PLUS ULUA**

**COVER:
VIC FAUGHNAN
WITH A TIGER
CAUGHT OFF MAUI
DURING A STATE
FUNDED SHARK CONTROL PROGRAM**

THE VOICE OF HAWAII'S SPORT FISHERMAN

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it didn't take long before a mad 'omilu buzzed. I led's jumping jack then it headed for the coral.

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preyed upon by other sharks is still uncertain; however, it is accepted that some success does take place. For instance, the larger, more aggressive tiger sharks may very well frequently prey on smaller gray sharks as well as the newly born pups of various species. However, as stated before, the degree of success is uncertain.

In the past, the state has been made aware of the shark problem inherent with our shallow inshore recreational waters, and at various times has taken steps to deal with the problem. Between 1959 and 1976 the state passed bills in the legislature calling for the initiation of shark control measures. The main objective of all shark control programs was simple—catch and destroy as many sharks as possible in the nearshore environment. A second objective was to collect as much scientific data concerning the life history of sharks. This data, hopefully, would be instrumental in learning how to more effectively control shark populations in the future.

Two good examples of the state's efforts in shark abatement were "The Billy Weaver Shark Research and Control Program" initiated in April 1959 (this program in a little over a year of its operation destroyed a total of 1,338 sharks at a cost of \$28,000, which figures out to be about \$21 per shark) and the "1967-1969 Cooperative Shark Research and Control Program" (this program operated for two full years and destroyed a total of 2,815 sharks at a cost of nearly \$210,000, which figures out to be about \$75 per shark). These figures reflect three things: 1. that shark control programs are expensive; 2. that these programs are effective; 3. that the operational costs increase over the years.

In 1971 the state again initiated a control program. Funds were appropriated for a six-month operation. The program was named the "1971 State Shark Research and Control Program," and it was to be only a token effort. During its six months of operation, a total of 274 sharks were destroyed at a cost of nearly \$48,000 which figures out to be about \$175 per shark.

In 1976 the state once more funded a control program; however, this one included two additional objectives to its goals: 1. to determine the feasibility of marketing shark flesh for human consumption and; 2. to create a seagoing platform for students to learn

C	9/20/68	72	11	6	-	-	3	-	-	-	20
D	9/21/68	72	5	3	2	-	-	-	-	-	10
TOTALS		144	16	9	2	-	3	-	-	-	30
H	3/12/69	72	-	-	2	-	-	-	-	-	2
J	3/13/69	81	1	6	6	-	3	-	-	-	16
E	3/14/69	60	5	9	-	-	-	-	-	-	14
D	3/15/69	81	6	13	2	-	-	-	-	-	23
B	3/16/69	24	-	5	-	-	3	-	-	-	8
GRAND TOTAL		318	12	33	8	2	5	3	-	-	63

seamanship and receive exposure to the studies of marine sciences. The program destroyed 124 sharks and lasted for only a few months. Because the objectives were quite different from those of the former programs, cost factors are not comparable.

Along with the yearly monetary increase of such control measures, our inshore shark population likewise increases. Since the 1976 program, the state has taken no additional action in the area of shark abatement.

An increase in the number of sharks is becoming more and more apparent. For example, a few years ago reports from scuba divers or dive clubs concerning confrontations with sharks, close encounters, threats or sightings were few and far between. This seems to be no longer the case but rather the exception. Recently many divers and dive clubs have been reporting frequent problems with sharks. The divers aren't reporting just sightings, but actual threats and aggressive behavior. Along with these reported increases of shark confrontations, I understand the sales of shark "power-heads" at dive shops have increased drastically.

For a personal view of this apparent increase of sharks, consider this: for the past 10 years or so I have actively fished for sharks along the south shore of O'ahu with an overnight setline. During that period I made three separate sets of the gear and caught on only one set; the other two sets were "whitewashes," or "skunks." This appears to have changed, in the past 12 weeks I have made four separate sets of the gear and have produced two or more large tiger sharks for each of those four sets. It's also interesting to note that of all the sharks caught in those sets only one was not a tiger—it was a 7-foot Galapagos shark.

A	4/16/71	72	3	5	-	-	-	-	-	8
C	4/17/71	72	1	8	-	-	-	-	-	9
M	4/18/71	72	-	-	-	-	-	-	-	0
O	4/19/71	72	1	2	-	-	-	-	-	3
L	7/16/71	72	8	-	2	-	-	-	-	10
M	7/17/71	72	-	1	1	-	-	-	-	2
A	7/18/71	72	8	1	1	-	-	-	-	10
C	7/10/71	71	-	-	-	-	-	-	-	0
M	7/11/71	72	2	-	-	-	-	-	-	2
L	7/12/71	72	1	-	1	-	-	-	-	2
GRAND TOTAL		863	31	20	5	0	0	0	0	56

It seems curious to me that I haven't taken some sandbar or other smaller gray sharks. Although many more sets would be required to draw a strong conclusion, this absence of other smaller and generally more abundant species could suggest that the presence of the larger more aggressive tiger sharks may be retarding the presence of the less aggressive gray sharks.

The late Dr. Albert L. Tester, chief investigator for the 1967 to 1969 program, implied that if the inshore sharks were not periodically fished with a concentrated effort, but rather left to their own means, they would, in seven years, reach a peak in maximum abundance. If this maximum were reached, the sharks would be forced to compete with each other more vigorously for the available food. This obviously would begin to diminish the availability of the marketable fish fishermen require for their livelihood. To take this one step further, with less food available for the sharks, they would, in all likelihood, begin to search for an alternate source of food, such as man. One reason for the extraordinary evolutionary success of sharks has been their ability to adapt to changes in their environment and food supplies.

If we accept what Dr. Tester suggested, and we have no reason not to, then it may be that Hawai'i's waters are rapidly approaching, or have approached that saturation point.

The costs involved for the operation of control programs were relatively great. However, when you consider the effect one serious shark attack could have on an economy precariously dependent on tourism, then the cost to the state and, more directly, to the taxpayer is acceptable. Statistics seem to show

continued ...



The late Capt. John Kushiwinui (of Miiouli, Hawai'i) shown repairing shark fishing gear aboard the 50' sampan "ALIKA" during the 1967-69 Cooperative Shark Research and Control Program, during which 124 sharks were captured and killed.

Shark Hunter continued...

that our islands attract over 3 million visitors annually. Of this number, perhaps only 7 to 10 percent actually enter our inshore waters. However, 10 percent of 3 million is 300,000. If that number refrained from purchasing all the beach-going paraphernalia our small businessmen offer, what would happen to their niche of the economy? Not to mention all of the other associated services rendered directly or indirectly to beach-going tourists. Along with this loss, what about the loss in tax dollars to the state?

A good example of the effect one or more shark attacks can have on an ocean-oriented tourist trade was seen in the town of Beach Haven, New Jersey. A classic in the annals of shark attacks took place in that quiet tourist resort town in 1916. In a period of 12 days, five individuals were attacked, four fatally. All of those attacks took place within a few miles of each other, in an area that till then had never experienced shark problems. The financial loss to the area's businessmen in trade and canceled reservations was well over \$1 million; and in 1916 this figure was more substantial than it is today. Granted, the incident cited is classical and unlikely to occur in Hawai'i, but it was also unlikely to happen at Beach Haven. I might add, the sharks involved in that particular incident were great whites. At this point one is tempted to say, "We don't have great whites here in Hawai'i." Not so. We do from time to time, and Beach Haven didn't know they had great whites, either.

Because of a lack of interest in the inshore shark

SHARK HUNTER



A standard set of gear consisted of nine baskets of gear. Each of these baskets consisted of eight dropperlines, 1,200 feet of $\frac{3}{8}$ -inch polypropylene mainline. The dropperlines were each 24 feet in length and contained a 3-fathom (18-foot) length of $\frac{3}{8}$ -inch polypropylene line and 1 fathom of $\frac{1}{4}$ -inch galvanized cable. The poly line and the cable were joined to a $\frac{1}{4}$ -inch double-eyed galvanized industrial swivel. A 14/0 heavy-duty shanked galvanized Mustad hook was joined to the cable by one, sometimes two, $\frac{1}{4}$ -inch copper sleeves utilizing a nico-press, as were the cables to the swivels. A $\frac{1}{2}$ - to 1-lb sheet of lead (about 3 inches high) was attached to each dropper line just above the swivel on the poly line. The mainline itself consisted of 10 120-foot (20-fathom) coils, both ends of which had an eye-splice. By joining these coils together at the eye-splices, the 1,200-foot mainline of one basket was achieved. The points at which the coils were joined became the tie-in points for each of the dropper lines. In this manner, all nine baskets of gear were assembled. The reason for this choice of assembly was that it was easier and faster to repair damage and tangling, which often occurred.

In addition to the above, the complete set included 27 floaters, 12 bamboo pole flag markers, 12 40-

Editor's note: Victor R. Faughnan is the author of "The National SHARK-O-PEDIA," an informative guide to the recognition and identification of many sharks occurring in American territorial waters, especially the sharks of the Hawaiian Islands, the Eastern Gulf of Mexico and the west coast of Florida.

In 1971, the Hawaii Fish and Game Department reactivated the Shark Control and Research Program and chartered the R/V MACHIAS with Victor Faughnan as field investigator, consultant and advisor. In 1976, Vic was selected as field investigator and consultant for the state of Hawai'i's Shark Utilization and Student Training Program on the 85-foot MV EASY RIDER.

In 1982 Vic moved to the mainland to become the assistant shark curator for the world famous Marine World in San Diego, California.

This gear was set parallel to the shoreline just before sunset, in water depths ranging from 15 to 30 fathoms. One set was comprised of three sections. One section consisted of three baskets tied together containing 24 hooks. The sections were set about a mile apart and generally fished in an area of about 10 miles of shoreline. The gear was allowed to fish about 12 hours and then was hauled aboard at about sunrise the following morning.

This was the method employed on all control programs. It proved very effective, dependable, durable and quite selective for sharks. The gear and methods discussed could be modified or even improved upon for more ambitious commercial endeavors or even reduced in complexity, size and cost for private individual shark fishing uses. For those individuals interested in catching sharks on a smaller scale, for home consumption or sale to the market, perhaps using one basket of gear as shown here would serve your purpose.

In summation, I have tried to show that shark control measures by the state are effective and necessary from time to time, that such measures are moderately expensive to operate, that the need for additional measures needs to be considered again, that inaction could prove more costly than action, that useful products are potentially available from sharks, that shark gear and fishing methods effectively catch sharks, and that the same methods can be utilized by commercial ventures or private citizens. Hopefully, some initial investigation will be consid-

DLNR Catches Large Shark!

■ A large tiger shark was hooked off Olowalu, Maui recently on gear set out by a fishing crew hired by the Department of Land and Natural Resources (DLNR).

A 10- to 12-foot tiger shark was found hooked early this morning on gear set Tuesday evening by O'ahu fisherman Steve Kaiser, using his 26-foot boat, *HIOLANI*. The shark was caught in 35 feet of water about 1/4 mile off Olowalu Point.

Bill Paty, DLNR chairperson, said that he is satisfied with the results of this fishing effort and has no further plans to catch sharks.

"We cannot be absolutely certain that this shark is the individual that attacked and killed a Maui woman," Paty said. "But the fact that we fished this area for two consecutive nights, and caught only one large animal, indicates that the area was not populated with many big sharks."

"We believe this effort removes a big threat to public safety and that our fishing crew was selective in its methods," Paty said.

All parts of the shark needed for scientific research and for use by Hawaiian groups (such as the skin for drum heads) were saved and the carcass was disposed of at sea.

... DLNR

Annotated List of Shark Attacks in the Hawaiian Islands (* - Fatality Involved)

- Compiled by the Honolulu Laboratory, NMFS
- | No. Date | Location | Victim |
|---|-----------------|------------------|
| (1*) 1779 | Maluu, Hawaii | Nu'u-anu-pa'a hu |
| Young male gashed on one side of buttocks after being pursued while surf boarding. Subsequently suffered "great pain" and died at Polohu (Kamakau 1961; Anonymous 1983c). | | |
| (2*) 1828 | Lahaina, Maui | Male |
| "A man out riding surf at 'Uo was killed by a shark which bit off his limbs and left his body floating." Attack witnessed by a number of Hawaiian chiefs (Kamakau 1961; Anonymous 1983a). | | |
| (3*) 2 June 1886 | Hamakus, Hawaii | 2 females |
| Washed into the sea while fishing from shore; one woman found bitten (fatal), the other woman disappeared (Morse 1953; Gilbert 1963). | | |

Shark Attack!

by Janice Planas

■ Just the mere mention of the word stirs up grisly images and primordial fears in most people. Almost every local in Hawai'i can relate at least one story he or she has heard about shark attacks here. It's always a shock when you hear that the waters in which you've played so peacefully have suddenly come alive with merciless teeth. And stories which have an element of shock in them can become clouded with misinformation through creative storytelling.

Some people refuse to believe that some monsters truly do exist; an actual attack is not often witnessed by many people. What is perhaps more interesting to attribute to shark sightings, such as shredded shorts, bits of flesh and

with wackos shooting people on freeways and blowing up shopping centers, it's perhaps more interesting to attribute someone's disappearance to human foul play. However, strong evidence, such as shredded shorts, bits of flesh and shark sightings in an area, points to a menace of a different species.

Just how frequent are shark attacks in Hawai'i?

Zoologist George Balazs of the National Marine Fisheries Service has compiled a historical list of shark attacks in Hawai'i. We've reprinted that list here. The list shows that from 1779 to November 1991 there have been 89 cases which are supported by literature documentation. Although the number of cases shouldn't have anyone scrambling for higher ground, it does suggest that a shark attack in Hawai'i is more than remote possibility.

A full draft of the list including literature documentation for each attack can be obtained by contacting the NMFS, SWFC Honolulu Laboratory F/SWC2, 2570 Dole Street, Honolulu, Hawai'i 96822-2396. If you have information on an overlooked or new case of shark attack, George would like to hear from you. You can contact him at the above address, or call him at NMFS at 943-1221.

- | | | | | | |
|---|--------------------|----------------|--|--------------------|--------------|
| (14) 28 Sept. '22 | Kamalo, Molokai | Male | (29) 18 Feb. '53 | Barbers Pt, Oahu | J. Takeuchi |
| Bitten while inspecting wharf (Anonymous 9122; Morse 1953; Gilbert 1963). | | | Bitten on hand while removing shark from net (Anonymous 1953b; Morse 1953; Gilbert 1963). | | |
| (15) 7 April '26 | Hilo, Hawaii | Mrs. Carlsmith | (30) 4 July '53 | Kaula Rock | David Crick |
| Bitten while swimming in turbid water near yacht club; severe lacerations on leg; 6-foot shark observed in area (Anonymous 1926d; Morse 1953; Gilbert 1963) | | | Fell off boat while fishing; bitten on leg (Anonymous 1953a; McMurray 1969). | | |
| (16*) 18 May '26 | Haleiwa, Oahu | Wm. J. Goins | (31*) 15 Apr. '53 | Oahu | Leonard Gaut |
| Victim gave a sudden shriek then disappeared while swimming at Haleiwa; remains of body found in 12.5-ft great white shark caught off Kahaiku (Anonymous 1926a, 1926b, 1926c, 1926d, 1926e; Gilbert 1963; Markrich 1983). | | | Fell off a fishing boat and disappeared. Victim's trunk and right forearm recovered from the stomach of a 16-ft shark (Gilbert 1963; Baldrige 1974). | | |
| (17*) 2 Sep. '31 | Kahala, Oahu | George Gaspar | (32*) 26 July '53 | Maile, Oahu | Harold Souza |
| Swept out to sea by strong currents while fishing; remains of body found in 18-ft shark caught off Barbers Point (Anonymous 1931a, 1931b; Gilbert 1963). | | | Bitten on thigh while spearfishing close to shore; 10-ft shark observed (Anonymous 1953d, 1953e; Gilbert 1963). | | |
| (18) 2 Sep. '53 | Pearl Harbor, Oahu | D. Gonsalves | (33) 2 Sep. '53 | Pearl Harbor, Oahu | D. Gonsalves |
| Bitten on leg and foot by 5-foot hammerhead shark while crabbing (Anonymous 1953c). | | | Bitten on leg and foot by 5-foot hammerhead shark while crabbing (Anonymous 1953c). | | |



- (4) **Early 1900's Kakaaka, Oahu Emil A. Berndt**
Young boy severely chafed when a large shark swam between his legs (MacKellar Street, Honolulu, 1961).
- (5*) **8 Aug. '02 Kailhi, Oahu Young male**
Pulled under while crabbing; both arms amputated (Morse 1953; Gilbert 1963).
- (6*) **1904 Honolulu, Oahu Male**
Partial remains of swimmer who had disappeared two days earlier off Diamond Head found in the stomach of a "monstrous shark." Body was complete from the waist down with the exception of one leg. Shark also contained ducks, tin cans, and wood (Gilbert 1963; Baldrige 1974).
- (7*) **1907 Pepekeo, Honomu, Hawaii Male**
Bitten while fishing (Gilbert 1963).
- (8) **8 Oct. '07 Kalepolepo, Kihei Male**
Arm amputated at the elbow while retrieving fish caught in net (Anonymous 1907; Morse 1953; Gilbert 1963).
- (9*) **17 Jan. '08 Mana, Kauai Male**
Pulled under while gathering fish stunned by dynamite (Anonymous 1908; Morse 1953; Gilbert 1963).
- (10*) **10 Apr. '09 Pauwela, Maui Mrs. A. Chong**
Nineteen-year old woman reported to have been swept away by waves while gathering 'opihi along the rocky shoreline. Search party saw a large shark devour what appeared to be part of the missing woman's body (Anonymous 1909).
- (11) **April '10 Pearl Harbor, Oahu M. Lund**
Unprovoked attack on a hard hat diver (Gilbert 1963). Authenticity questioned by Baldrige (1974).
- (12*) **1910 Hilo, Hawaii Male**
Bitten while fishing (Gilbert 1963).
- (13*) **Mar. '14 Honomu, Hawaii Okomoto**
Washed into the sea while picking 'opihi; victim was attacked by two large sharks (Gilbert 1963; Anonymous 1914).
- (18) **16 Feb. '32 Lahaina, Maui Male**
Sailor from U.S. Navy vessel SARATOGA bitten while swimming about 1 mile off Mala Wharf. Two wounds each 6 in long were inflicted (Anonymous 1932).
- (19) **4 Oct. '39 Kaneohe, Oahu James Akina**
Bitten on hand by 5-ft shark while spear-fishing in shallow water (Anonymous 1939; Morse 1953; Gilbert 1963).
- (20) **1 July '41 Nanakuli, Oahu H. Shimoto**
Bitten on arm while removing 100-lb shark from fishing line (Gilbert 1963).
- (21*) **June '43(?) Maalaea, Maui Male**
Soldier's shorts and an arm recovered from a shark caught at Maalaea. Items seen at the 22nd Army hospital in Makawao (John Bonsey, pers. commun.).
- (22) **1943 Midway, NW Haw'n Islands Male**
Unprovoked attack, but unable to determine circumstances (Gilbert 1963).
- (23) **1943 Midway, NW Haw'n Islands Male**
Unprovoked attack, but unable to determine circumstances (Gilbert 1963).
- (24) **27 June '47 Makaha, Oahu V. Limatoc**
Bitten while spearfishing with six other men (Anonymous 1947; Morse 1953; Gilbert 1963).
- (25) **19 Sep. '48 Makepuu, Oahu N. Kalama**
Bitten on leg while swimming (Anonymous 1948; Morse 1953; Gilbert 1963).
- (26*) **25 June '51 Kapehu Beach, Alejandro**
Swept out to sea while fishing from Laupahoehoe, Hawaii Nodura shore. Victim seen in shark's mouth (Anonymous 1951).
- (27*) **3 Aug '52 Ala Moana, Oahu S. Kawamura**
Missing while swimming; shark bite found on right side of body (Anonymous 1952b; Gilbert 1963).
- (28*) **3 Dec. '52 Maile, Oahu Gerbacio Solano**
Bitten on arm while swimming from fishing boat; shark reported to be in excess of 22 ft (Anonymous 1952a, 1952c; Gilbert 1963).
- (34*) **8 Apr. '54 Waialue, Oahu G. Chun**
Missing while fishing from shore; body recovered in mutilated condition (Anonymous 1954a, 1954b).
- (35) **1954 Molokai Severino**
Unprovoked attack, but unable to determine circumstances (Gilbert 1963).
- (36) **Apr. 1955 Hilo, Hawaii R. Oshiro**
Bitten on hand while fishing from boat (Anonymous 1963c).
- (37) **20 Sep. '55 East Molokai Phillip C. Diez**
Bitten on arm while swimming (Monahan 1955; Gilbert 1963).
- (38*) **13 Dec. '58 Lanikai, Oahu Wm. Weaver**
Leg amputated while surfing on an air mattress near Twin Islands; 15- to 25-ft shark (believed to be tiger shark) observed near body when fire-rescue personnel found it 2 hours later (Morse 1958; Tester 1960; Ikehara 1961; Gilbert 1963; Markrich 1983).
- (39) **1950's Waikiki, Oahu David Lloyd**
Provoked attack, but unable to determine circumstances (Gilbert 1963).
- (40) **27 Feb. '60 Makana, Maui John Benjamin**
Severe lacerations obtained while spearfishing (Anonymous 1960a; Gilbert 1963).
- (41*) **27 Dec. '60 Malle Point, Oahu H. Riley**
Swept out to sea while net fishing; 20-ft shark observed attacking victim; body recovered off Nanakuli (Anonymous 1960b, 1961a; Gilbert 1963).
- (42) **2 Aug. '61 Pearl Harbor, Oahu K. Kato**
Bitten on hand by 8-ft shark while net fishing (Anonymous 1961b; Gilbert 1963).
- (43*) **8 Apr. '63 Hapuna, Hawaii R. Kametani**
Washed into the sea while picking opihi; parts of body recovered (Anonymous 1963a, 1963b).
- (44) **12 Apr. '63 South Kona, Hawaii A. Aka**
Bitten on leg and foot while surfing; 12- to 15-ft shark observed (Anonymous 1963c; McMurray 1963).

continued...

Billy Weaver Shark Research and Control Program

A. Location—Major Hawaiian Islands.

B. Dates—April 1, 1959 to March 31, 1960.

C. Purpose—Catch and destroy as many near-shore sharks as possible and collect scientific data.

D. Cost of Program—\$28,000 total, \$21/shark.

E. Value of Program—Intended to eliminate risks of shark attack.

F. Technology Used—Gear used consisted of a main line ½ mile long of ten fathom sections of ½ inch rope. Twenty-four hooks were attached to three fathom long gangens (hook and line rigs) spaced ten fathoms apart. The line was anchored at each end and buoys were attached at every four hooks. Three of these units were set at approximately 25 fathoms, parallel to the shore and ½ to 1 mile apart. They were set in the afternoon and retrieved in the early morning.

G. Catch Statistics—1,338 sharks were captured. Catch data by each circuit of the major islands are listed below. Data on species, area composition, stomach contents, length and information on gravid sharks can be found in Ikehara (1961). It is significant that catch rates declined dramatically within one year of the program's initiation.

Shark Catches in Hawaii, Billy Weaver Program

Fishing Circuit #	Date	# of Sharks	# of Catch/100 Hooks
1	05/18/59 - 08/14/59	219	11.13
2	08/19/59 - 10/25/59	178	6.53
3	10/26/59 - 02/04/60	107	4.13
4	02/05/60 - 03/22/60	58	2.52

H. Ecological Studies—None.

I. References—Leighton Taylor, Jr. (pers. comm.), Faughnan (1980), Ikehara (1961).

Number of shark attacks recorded in the Hawaiian Islands, 1980-91

Year	Total	Involved fatality	Island breakdown				
			Kauai	Oahu	Molokai	Maui	Hawaii
1980	1					1	
1981	5	3	1	1	1	1	2
1982	3			2		1	
1983	0						
1984	1			1			
1985	2		1	1			
1986	1	1	1				
1987	1	1					1
1988	2	1	1				
1989	8	3	3	2	1	1	1
1990	2	1	2				
1991 (as of 12/9/91)	4	2		2		2	
Total	30	12	9	9	2	5	4

Number of Shark Attacks in Hawai'i by Decade and Island

	1779	1828	1880	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	Total
Hawaii	1	1	1	2	1	2	1	2	2	2	2	4	16	4
Maui		1	2				1	1	1	2	5	4	16	16
Molokai						1				2		2	5	5
Lanai													0	0
Kahoolawe													0	0
Oahu			3	1	1	1	2	3	9	5	2	7	33	33
Kauai			1						2	7	10		0	0
Niihau													1	1
Kaula								2					2	2
Midway														
Total	1	1	1	0	7	3	3	3	6	14	9	11	24	83

Number

Involving

Fatality

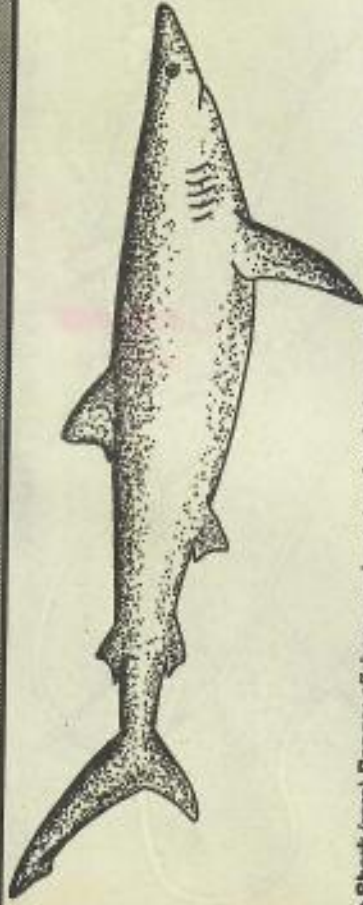
1 1 1 0 5 2 1 1 0 7 4 3 9 36

- (45*) 20 Sep. '67 Kailua Bay, Oahu Male
Victim lost at sea when boat capsized between Oahu and Molokai; remains of body found in 11-ft. tiger shark (Anonymous 1967; Tester 1969, 1973).
- (46) 9 Mar. '69 Makaha, Oahu Licius Lee
Bitten on leg while surfing; identified as great white shark from teeth marks in surfboard; dead whale recently removed from the area (Anonymous 1969; McMurray 1969; Lissau 1975; R. Wass, pers. commun.).
- (47) 11 Nov. '69 Barbers Pt., Oahu D. McGinnis
Bitten on tank while scuba diving for lobsters; abrasions on arms and legs and cut on ankle resulting from contact with shark (Tester 1973; Baldrige 1974).
- (48*) 1960's(?) Off Lahaina, Maui D. Nakalima
Passed out while scuba diving for black coral at 180 feet. About 30 large sharks seen near partially devoured remains of the body (Grigg 1979).
- (49*) 31 Mar. '70 Waimea, Oahu E. Resthford
Swept out to sea while body surfing; 15- to 18-ft shark observed (Anonymous 197*)
- (50) 24 Oct '70 Poipu, Kauai J. Mattan
Bitten on shoulder and arm while body surfing (Ching 1970).
- (51) 16 Mar. '72 Wailuku, Maui A. Gomes, Jr.
Bitten on leg while spearfishing (Anonymous 1972b).
- (52) 17 Aug. '72 Honokaa, Hawaii E. Fotherby
Bitten on arm by 8-ft shark while spearfishing (Anonymous 1972a).
- (53) 9 Jan. '73 Hookipa, Maui R. Sterling
Bitten on leg while surfing close to shore; 4- to 6-ft shark observed in area; wound required 100 stitches (Nickerson 1973).
- (54) 18 Dec. '73 Kihel, Maui Gary W. Floyd
Bitten on leg while swimming close to shore (Anonymous 1973a, 1973b).
- (55) 10 June '76 Kihel, Maui Donald Card
Bitten on foot and leg by 3- to 5-ft shark while swimming (Tanji 1976).
- (56*) 16 July '76 Koloa, Kauai S. Powell
Missing while scuba diving; lower remains of body recovered (TenBruggencate 1976; Anonymous 1976).
- (57) 21 Apr. '77 Kaanapali, Maui R. Vest
Bitten on arm by 4-ft shark while swimming close to shore (Anonymous 1977)
- (58) 27 Nov. '78 Ewa, Oahu W. Cabunoc
Severely bitten on arm while surfing; 8-ft shark observed (Anonymous 1978; McMurray 1978).
- (59*) 1979(?) S. Kohala, Hawaii Elderly male
Disappeared while fishing from shore. Fire Department divers only found a hand and a flashlight (Thompson 1982).
- (60) 4 Aug. 1980 Puamans, Maui M. Skidgel
Bitten on left side of body while resting on a boogie board 40 ft from shore; identified as 14-ft tiger shark; wound required 52 stitches (Anonymous 1980; McCabe 1980; Martini and Welch 1981).
- (61*) 24 May '81 Haena Beach, Kauai R. Garletts
Missing while scuba diving at 60- to 80-ft; only diving equipment recovered, including shredded wet suit bearing numerous tooth marks. Spearfishing in murky, choppy water (Anonymous 1981d, 1981g, 1981h; Stapleton 1981).
- (62*) 12 June '81 Hilo Bay, Hawaii P. Soley
Retrieval of floating body hindered by 4-ft shark. Autopsy showed that death was probably from drowning. One-third of body missing due to bites by at least four sharks (Anonymous 1981b, 1981c, 1981f; Rood 1981).
- (63*) 24 Aug. '81 Hilo, Hawaii Ernest Watson
Disappeared while fishing from shore. Leg found 7 days later wedged in rocks 150 yd offshore (Anonymous 1981e).
- (64) 9 Nov. '81 Laau Point, Molokai L. Ohai
Bitten on hand while untangling crab-trap line from propeller. Seven-foot shark had followed the boat for 3 days and reportedly was very unusual looking with a "flat head" (Altonn and Gomes 1981).
- (65) 13 Dec. '81 Barbers Pt., Oahu M. Toma
Severely bitten on right leg by 12-ft tiger shark while swimming at the surface shortly after entering water; site located 300-400 yd offshore over depth of 20 ft. Looking for fish, but none had been speared when attack occurred; wound required 200 stitches. (Anonymous 1981a, 1981i;
- Mayer 1982; Lipman 1983; Melvin Toma, pers. commun.).
- (66) 14 Feb. '82 Barbers Point, Oahu L. Miller
Bitten on left leg while wading in 3- to 4-ft of water; 17 stitches required (Anonymous 1982a, 1982b; Matsunaga 1982; Mayer 1982).
- (67) 14 Feb. '82 Barbers Point, Oahu Female
Bitten on right foot while swimming in shallow water (Anonymous 1982a; Matsunaga 1982; Mayer 1982).
- (68) 13 June '82 Pala, Maui S. Shoemaker
Severely bitten three times on the thigh after falling into water while sailboarding 100 yd outside the breakers. Required 120 stitches (Schweitzer 1982; Anonymous 1983b).
- (69) 3 June '84 Kaneohe Bay, Oahu S. Buecher
Bitten on foot while being pulled on a plastic ski board by a swimmer. Incident happened at 1700 h in water 5-feet deep, about 400 yd from shore. Stitches and a cast required (Borg 1984).
- (70) 12 Oct. '85 Barbers Pt., Oahu D. Dela Cruz
Severe gashes to left arm requiring surgery. Attack occurred off Barbers Point Lighthouse while floating on an inner tube after diving for lobster (Anonymous 1985a, 1985c).
- (71) 18 Oct. '85 Princeville, Kauai J. Thompson
Right hand and forearm amputated by a large shark while boogie-boarding. Believed to be a tiger shark (Anonymous 1985b; Chang 1985; Cook 1985; TenBruggencate 1985a, 1985b; Joe Thompson, pers. commun.).
- (72*) 20 Apr. '86 Kailihwai, Kauai L. Chandler
Fell from rocks and disappeared while fishing at Kailihwai Point. Pieces of clothing and human flesh were recovered by Fire Department divers who encountered a large shark (Anonymous 1986a, 1986b, 1986c; Mangiboyat 1986).
- (73*) 15 Apr. '87 Kailua-Kona, Hawaii D. Kennedy
Last seen swimming from shore out to an anchored sailboat. Swimming trunks found bitten in half on the bottom (Anonymous 1987a, 1987b, 1987c, 1987d, 1987e, 1987f; Bloss and Camacho 1987; Clark and Hogan 1987; Flickinger 1987a, 1987b; Lyons 1987a, 1987b; Naughton 1987; Ravenscraft 1987; Reynolds et al. 1987; Rowe 1987; Thompson 1987; Voge 1987).

continued...

Sharks of the Hawaiian Islands

Illustrated
by
Les Hata



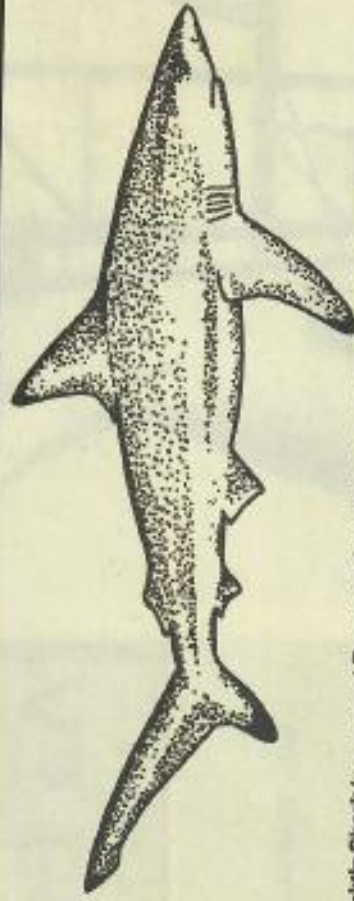
Blue Shark (rare) Range: offshore, rarely ventures into inshore waters, Maximum Length: 12.5 feet, Danger Rating: potentially dangerous.



Blacktip Reef Shark (uncommon) Range: entirely littoral, occurs inshore on and near shallow reefs, Maximum Length: 6 feet, Danger Rating: potentially dangerous.



Grey Reef Shark (uncommon) Range: occurs near reefs, ledges and drop-offs, depth preference varies, Maximum Length: 8 feet, Danger Rating: potentially dangerous.



Blacktip Shark (uncommon) Range: prefers reef faces and surf zones, Maximum Length: 8 feet, Danger Rating: potentially dangerous.



Galapagos Shark (uncommon) Range: prefers inshore shallows like those commonly found around many islands of the Pacific, may occur far offshore as well, Maximum Length: 12 feet, Danger Rating: very dangerous.



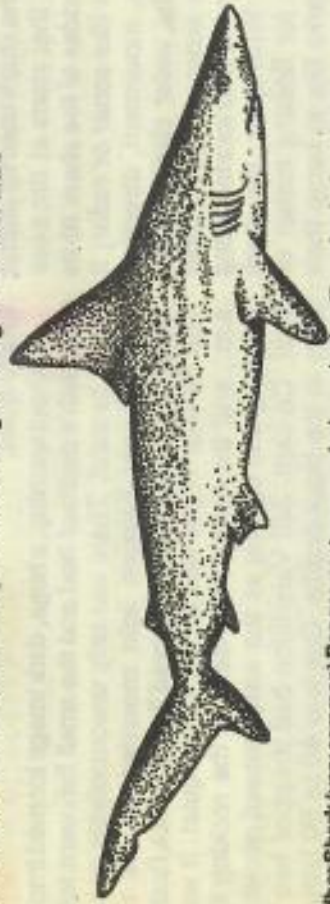
Great Hammerhead Shark (uncommon) Range: oceanic, Maximum Length: 20 feet, Danger Rating: large individuals very dangerous.



Oceanic Whitetip Shark (common) Range: entirely pelagic, occurrences inshore are very rare, Maximum Length: 12 feet, Danger Rating: potentially dangerous.



Megamouth (very rare) Range: uncertain as specimens have been taken at depths of 500 feet over water nearly 1½ miles deep, Maximum Length: 16 feet, Danger Rating: no threat to man.



Sandbar Shark (very common) Range: most common inshore shark, utilizes depths from 300 feet to shore, frequents harbors and bays, Maximum Length: 8 feet, Danger Rating: potentially dangerous.



Thresher Shark (rare) Range: usually pelagic, often found inshore while pursuing schools of fish, Maximum Length: 20 feet, Danger Rating: potentially dangerous.



Whale Shark (rare) Range: usually pelagic, often occurs inshore in very shallow water while following large schools of small fish and plankton rich currents, Maximum Length: 59 feet, Danger Rating: no threat to man.



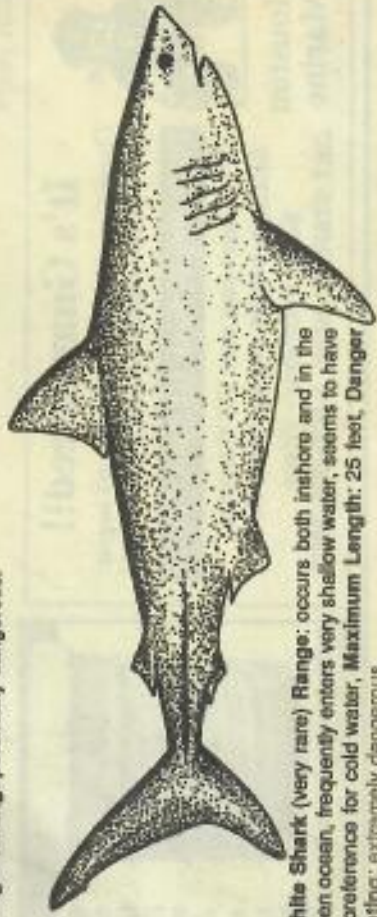
Scalloped Hammerhead (very common) Range: prefers inshore shallows, enters shallow bays and harbors to give birth, also found in open ocean, Maximum Length: 13 feet, Danger Rating: large individuals very dangerous.



Tiger Shark (common) Range: occurs very shallow inshore (at night), during day time this shark tends to return to open ocean, deep water, Maximum Length: 20 feet, Danger Rating: highly dangerous.



Whitetip Reef Shark (common) Range: entirely littoral, occurs inshore in shallow water among rocks, caves and crevices, Maximum Length: 8 feet, Danger Rating: potentially dangerous.



White Shark (very rare) Range: occurs both inshore and in the open ocean, frequently enters very shallow water, seems to have a preference for cold water, Maximum Length: 25 feet, Danger Rating: extremely dangerous.



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