



Traditional Fishing Techniques in the Marshall Islands.

Carmen C.H. Petrosian-Husa



Alele Report 2004/3

Majuro Atoll, 2004

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Forward.

The following report is the result of intensive background research in early German sources and some interviews conducted on Arno, and Wotho Atoll. This project was sponsored by the Republic of the Marshall Island's Historic Preservation Office and funded by the Historic Preservation Fund, National Park Service, Department of the Interior.

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Carmen C. H. Petrosian-Husa
Majuro Atoll, Marshall Islands
September 2004

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I. INTRODUCTION.

1.1. Project Objectives.

The purpose of this report was twofold. The first was to identify the records on traditional Marshallese fishing techniques and to present these findings. The second was to produce an educative booklet, which can be used in schools.

Some of the described fishing practices are still practiced, some not, some knowledge is still common, some has been forgotten. Therefore, the following report has been written in the past tense in order to give a vivid picture of the way fishing was conducted and experienced in pre-colonial times.

As the author of this report is not a high school teacher by profession the second objective, to produce an educative booklet, was 'outsourced' to Patricia Schmidt McDonald, an education consultant. She will (free of charge) transcribe the findings of this report as reading material for junior high school students and attach a teacher's guideline how to implement this reading material into their curriculum and how to complement it with the sources available.

1.2. Evaluation of Research Design and Methods Used.

A) Background Research.

Background research relied heavily on the 18 volumes of the German sources, compiled by Dirk Spennemann and housed in the Historic Preservation Office in Majuro. Without these sources this report could not have been written.

B) Fieldresearch.

Fieldwork was conducted on Arno, and Wotho Atolls. These interviews were organized in the course of Atoll surveys and are also mentioned in the respective reports.

Informants on Arno Atoll: Jimel Jawin, Arno Island,
Hilmar Jormelu, Jebo Island,
Lañtimur Bohanny Jormelu, *Lerooj* of Arno Atoll,
Lekdlík Johnson, Arno Island.

Informants on Majuro: Glen Joseph and Clyde James, Marshall Islands
Marine Resources (MIMRA).

Informants on Wotho Atoll: Rington Jelke,
Nijan Joseph.

1.3. Limitations of Research.

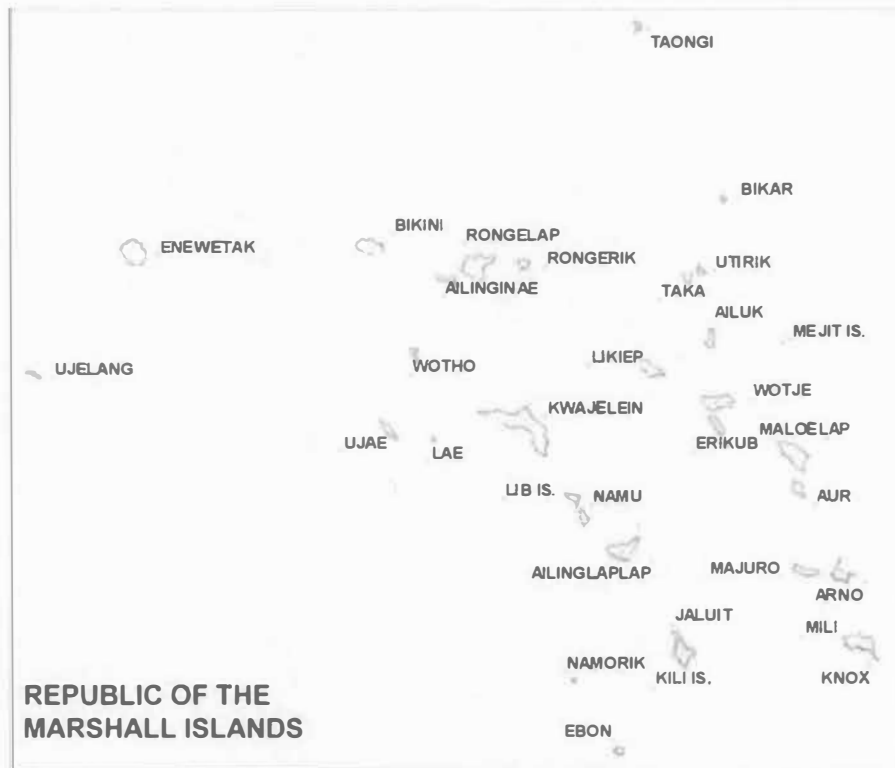
The ethnographer, being a woman and not a 'fisherwoman' herself, had to get accustomed with general fishing terms and technologies in order to understand and comprehend the Marshallese concept of fishing and its ingenuity. This was only accomplished on a pure theoretical basis.

Besides the extensive background research of texts of mostly German provenience it was not possible to visit more outer islands and record their fishing traditions as well as their views and opinions about traditional fishing. Also concerning information about ciguatera, case studies and treatments, it was not possible to get more information from the hospital in Majuro. Finally not much data concerning modern fishing techniques and many related topics have been included, thus, this report is far from complete and a long term and more detailed study should be encouraged.

1.4. Previous Research.

None of the sources from the German colonial time deals exclusively with fishing. But fishing techniques, taboos and tools are often mentioned. After WWII when several American anthropologists came to the Marshalls to do research, fishing was a topic of great interest for them. Some topics of this report have been mentioned in the Historic Preservation Preliminary Reports of the Anthropological Surveys of Arno and Wotho Atoll.¹

¹ Petrosian-Husa, 2004a and Petrosian-Husa, 2004b.



Map 1. Republic of the Marshall Islands.

1.5. History of the Marshall Islands.

First there were two serpents or worms. They stayed in a shell where they developed into a human form. The male was called Wulleb and the female was Lehman, Woman Rock. In order to enlarge the world Wulleb used a stick and lifted the arch of the shell. Thus he expanded the sky to its present height and the ocean to what we know. From a boil on Wulleb's forehead emerged Lewoj and Lanej, who were sent to the sky to establish the stars. Lejman also had two female offspring, Lino, the tidal wave and Ni, the coconut.³

There are many variations of creation accounts. Despite their differences they introduce the key characters important to Marshallese cosmology, such as Wulleb, Letao, etc.

The people of the Marshall Islands refer to their parallel-chained archipelago as *Aelon Kein*, "These Atolls." According to folklore the first discoverers and settlers were a handful of wayfarers seeking an uninhabited autonomous area where they could live.⁴

³ Raymond, 1899:9.

⁴ Hart, 1992.

What little we know about early Marshallese comes from oral history and early accounts of explorers.

Marshallese autonomy was threatened when the first of eight known Spanish ships passed through the area. The first recorded sighting, probably Bokak Atoll, was made by Alonso de Salazar, commanding the *Santa Maria de la Victoria*, but no contact was made.⁵ In 1529 contact was made by Alvaro de Saavedra of the *Florida* which laid anchor to take provisions at Enewetak or Bikini and stayed for eight days. He also discovered Utrök, Taka, Ujelang, and made landings at Rongelap and Ailinginae. The Spanish flagship *Santiago* and five other ships in the expedition under Ruy Lopez de Villalobos is credited for the western discovery of Wotje, Erikub, Maloelap, Likiep, Kwajalein, Lae, Ujae, and Wotho. Landings were made on some of the islands.⁶

In 1565, Alonso de Arellano of the Legaspi expedition sighted Likiep, Kwajalein and an island thought to be Lib⁷ while Legaspi himself is credited with sighting Mejit, Ailuk and Jemo. Some trading was done at Mejit.

The following year the mutineer Lope Martin commanding the *San Jeronimo* made several sightings and was eventually stranded in the Marshall Islands, probably on Ujelang. Two years later the Spanish ships, *Los Reyes* and *Todos Santos*, under Alvaro de Mendana went ashore at what is probably Ujelang. Namu was also thought to be sighted.⁸

Fifty seven years passed before another vessel is reported to pass through the Marshall Islands' chains. The Dutch ship *Eendracht* and ten other vessels of the Nassau fleet commanded by Admiral Gheen Schapenham sighted Bokak.⁹ In spite of Spain's annexation of the Marshall Islands in 1686, the Spanish established no trading post, trade routes, or left any lasting influence.

In 1767 Captain Samuel Wallis of the British ship *Dolphin* sighted what is thought to be Rongerik and Roneglap.¹⁰ Even though the Spanish were the first known westerners to see the Marshall Islands credit is given to Captain William Marshall, commander of the *Scarborough*, and to Thomas Gilbert, commander of the *Charlotte* for

⁵ Levesque 1992a; Sharp, 1960:12.

⁶ Levesque 1992a; Sharp, 1960:28.

⁷ Sharp, 1960.

⁸ Levesque, 1992a.

⁹ Hezel, 1979.

¹⁰ Sharp, 1960:108; Hezel, 1979.

the discovery or more appropriately the rediscovery of the Marshall Islands in 1788. Marshall and Gilbert mapped these island groups and traded with the various atolls. They are the first westerners to sight Mili, Arno, Majuro, Aur, and Nadikdik.¹¹ They also sighted the previously discovered Wotje, Erikub, Maloelap, and Ailuk and called these newly found islands after the 1. Lord of the British Admiralty 'Lord Mulgrave-Islands'.

Captain Henry Bond aboard the British merchantman vessel *Royal Admiral*, sighted Namdrik and Namu in 1792. Two years later the British ship *Walpole*, under the command of Captain Thomas Butler, sighted Enewetak. Thomas Dennet was the first westerner to sight Kili as well as reporting on Ailinglaplap, Lib, and doing some trading on Namu in 1797. Other vessels sailed through the area, including the British ship *Hunter*, the British brig *Nautilus*, the ship *Ann & Hope* of Providence, *Ocean*, *Herald*, and *HMS Cornwallis*, to name a few. These ships sighted atolls and islands that had been previously reported but did not stop and trade. Jaluit was sighted by the *Rolla* in 1803 and again in 1809 by Captain Patterson of the British merchant brig *Elizabeth*, both of which landed and did some trading.¹²

The first scientific exploration of the Marshalls was conducted by a Russian, Otto von Kotzebue, in 1816-17 and 1824. It is during this time that first significant contact between Europeans and Marshallese was made. Von Kotzebue and his crew spent several months in the Ratak Islands in 1817 and 1824, specifically Wotje, Maloelap, and Aur Atolls.¹³

The account left by this expedition provides the first early ethnographic material including an interesting description of how Kotzebue was urged to help Lōmade defeat Latete, a powerful southern Ratak *Irooj*, and become *Irooj* of all Ratak. Although Kotzebue declined the offer, his influence was noted. Traditional warfare practices began to change soon after Kotzebue's first visit. Metal hatchets given as gifts were attached to wooden poles. Lōmade's troops used these new weapons to defeat the powerful *Irooj* and establish control over the Ratak Chain.¹⁴

Other ethnographic observations come from Lay and Hussey (1828), who survived the *Globe* mutiny at Mili Atoll, and Paulding (1831), a U.S. Navy lieutenant, who helped to retrieve Lay and Hussey. These early observers published accounts, which

¹¹ Sharp, 1960:154.

¹² Sharp, 1960:173, 178, 183, 191; Hezel, 1979, 1983.

¹³ Kotzebue, 1821; 1830; von Chamisso, [1836] 1986.

¹⁴ Erdland, 1914; Krämer und Nevermann, 1938.

give us an insight to traditional personal appearance, manners, food, dwellings, and to a lesser extent, facets of political and social organization as reflected by traditional practices.

Prospects of profitable trade lured German entrepreneurs into the Marshall Islands in the latter part of the 19th Century. Subsequent contact with Europeans gradually increased as whalers concentrated their activities in the region. They were hunting to provide lamp oil to meet European and American demands. With disruptive and intolerant whalers as well as English blackbirders, both being in search of cheap labor to work the mines and plantations in the New World and Australia, encounters turned hostile. Numerous ships were attacked by the Marshallese and the crews killed; brutal retaliation followed. The mood of contact in the first half of the 19th Century was one of confrontation.¹⁵

The treacherous reefs, reduced numbers of whales and the new method of distilling of kerosene from crude oil soon put the whalers out of business. The blackbirders however continued their raids until the 1870's.

In 1857 two American missionaries from the American Board of Commissioners for Foreign Missions, Congregationalists from the New England area, succeeded in setting up operations on Ebon (where as recently as 1852 a ship from San Francisco had been attacked and the entire crew killed).¹⁶ The Marshallese *Irooj* opposed the missionaries and the establishment of new congregations throughout the 1860s because it eroded their power. This loss of power was somewhat alleviated by the establishment of permanent trading stations, as the demand for copra rapidly increased. The chiefly power base gradually shifted from control over the land to control over the trade between the Marshallese and the foreigners.¹⁷ Ebon remained the mission center, from which occasional trips were made throughout the southern atolls, until in 1880, when the station was moved to Kosrae in the Eastern Carolines.

Changes in the Marshallese way of life had been rapid and extensive. The dominant contact with the outside world had been through missionaries sent or trained by the American Board. Yet virtually no ethnographic description is to be found among the voluminous records kept by the missionaries. Instead they were "not only indifferent, but supremely scornful of the religious beliefs [of the Marshallese]. They tried to extinguish

¹⁵ Hezel, 1979, 1983; Dye, 1987.

¹⁶ Hezel, 1979.

¹⁷ Dye, 1987.

them completely and to destroy every trace of them.¹⁸ The ethnography summarized by the Germans, Erdland (1914) and Krämer and Nevermann (1938), coincided with major structural changes in the Marshallese way of life. Writing in about 1905, the German ethnographer and priest Erdland commented, "the present generation no longer has any exact knowledge of the inner coherence of the ancient traditions."¹⁹

Other factors also influenced these changes. The copra trade dates from about 1860 in the Marshall Islands and American, Australian and German firms often had resident traders on the various atolls. Beachcombers added to the resident white population, often filling the role of trader as well.

A) German Time.

In 1885 the Marshall Islands became a protectorate of Germany, as the Marshall Islands were not under the sovereignty of any civilized state".²⁰ During the German era,



Fig.1. German 'Reichsadler'.

which lasted until 1914, the atolls were visited regularly, by traders, missionaries, and administrative officials. Administration of the area was carried out by the German trading company, *Jaluit Gesellschaft*. This firm which resulted from a merger of companies active in the area, Robertson and Hensheim, and *Deutsche Handels - und Plantagengesellschaft* (D.H.P.G.) (formerly *Johann Godefroy und Sohn*), had exclusive trading rights in the Marshalls. Despite complaints about this monopoly by the Australian firm Burns Philip and Co., the New Zealand company, Henderson and MacFarlane, and others, the German government

continued to act on the advice of the *Jaluit Gesellschaft* until 1902 when it assumed direct administration of Micronesia.²¹

This form of administration, with primarily an economic focus, had little impact on the health and educational level of the Marshallese. In this regard, the missionaries were of greater importance. Select groups of Marshallese were educated in the German language to serve as interpreters and the services of a doctor were available on occasion.

¹⁸ Knappe, 1888.

¹⁹ Erdland, 1914:307.

²⁰ Pauwels, 1936.

²¹ Hezel, 1983.

Copra was the main product of the Marshalls and production was stimulated by taxes assessed through the traditional leaders as well as through the availability of Western goods. This form of indirect rule strengthened the traditional political organization of the Marshallese, while the German administration dealt mostly with conflicts between foreigners and the *Irooj*.²²

Warfare between the island *Irooj* was eliminated, an act which froze the relative social positions of the *Irooj* and their *jowi* (clan) and created a condition of inflexibility in the social system; in addition it allowed increased trading and missionary activity and thus contributed to more rapid cultural change.²³ German ethnographers were active in this period and it is largely through their efforts, especially in the many publications of Augustin Erdland, that much is known of the traditional way of life.²⁴

B) Japanese Time.

In 1914 at the beginning of World War I, the Marshall Islands were taken from Germany by Japan. They shifted to a system of direct rule through a set of community officials and the administrative staff was expanded. Traders of other nationalities were excluded and the Japanese attempted to expand copra production. Protestant and Catholic missionary activity was allowed to continue unhampered, and in the general the

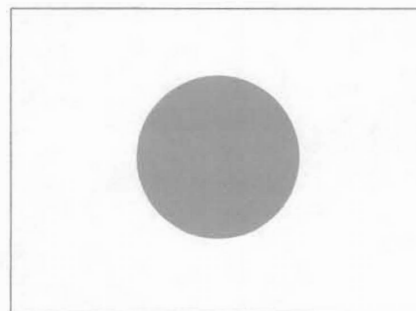


Fig.2. Japanese flag.

Marshallese appear to have gotten on well with the Japanese.²⁵ The Japanese did conduct ethnographic research, however most of this material has not yet been translated into English.

The Japanese military, through the South Seas Defense Corps, governed the Marshalls until 1918. From 1918 until 1920, a combined civilian and military government was in charge. In 1920 Japan was awarded Micronesia as a Class 'C' mandate by the League of Nations (although they continued to submit annual reports through 1937). After 1933, the Japanese considered the Marshalls and the rest of Micronesian mandate an integral part of the Japanese Empire.²⁶ During the Japanese era,

²² Hiery, 1995.

²³ Spoehr, 1949.

²⁴ Augustin Erdland, was a priest who lived for many years on the Marshall Islands.

²⁵ Spoehr, 1949.

²⁶ Peattie, 1988.

the administration had several goals; the economic development of Micronesia, the use of the islands as an immigrant settlement for Japan's rapidly increasing population, the Japanization of the islanders through education, language training, and enforced cultural change, and eventually, the use of the islands for military bases in anticipation of World War II.²⁷

For the Marshallese improvement in health and sanitation were minimal. The "availability of adequate medical care was directly related to one's ability to pay" and despite a sliding fee scale, "the poorer and generally unhealthier native received less care".²⁸

Education was also segregated and of differential quality. Ethnic Japanese were offered a school system identical to the one in Japan, while the Marshallese received three years of primary education consisting mostly of Japanese language instruction and ethics classes, with an additional two years for the more promising students.²⁹

The Japanese administration also attempted to make a number of changes in the Marshallese social and political organization. They appointed non-*Irooj* Marshallese leaders, which was contrary to the existing political structure, thus weakening the position of the traditional leader.³⁰ The Japanese also attempted to change the Marshallese social organization of matrilineality to conform to the Japanese system of patrilineality, more like their own system, with little success.

In the early 1930s, Japan began to construct fortifications on Kwajalein, Enewetak, Jaluit, Wotje, Mili, and Maloelap. Marshallese were conscripted to labor on these buildings and were resettled.³¹ World War II started in 1941. In 1944, U.S. forces concentrated on gaining supremacy in the Pacific. Kwajalein, Majuro, and Enewetak were captured within one month. All of the other atolls except Wotje, Maloelap, Mili, and Jaluit were checked for Japanese in the next two months. In those bypassed atolls, the Marshallese escaped or were removed under cover of night and resettled temporarily on Majuro, Arno, or Aur atolls.³² The U.S. fortified Enewetak and Kwajalein atolls as military bases.

²⁷ Peattie, 1988.

²⁸ Shuster, 1978.

²⁹ Hezel, 1995.

³⁰ Bryan, 1972.

³¹ Peattie, 1988.

³² Smith, 1955.

C) US Trust Territory of the United Nations.

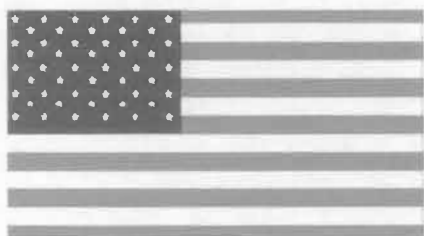


Fig. 3. American flag.

After World War II, the United States took over trusteeship of the Marshall Islands. In this time extensive ethnographic research was conducted in the Marshall Islands. Beginning with Spoehr's work on village life in Majuro (1949), ethnographers have concentrated on community studies. The primary sources are Mason (1947, 1954) whose focus is economic organization; Kiste (1967, 1974) who deals with resettlement issues, Davenport (1952, 1953), and Chambers (1969, 1972) who concentrates on oral traditions.

During this period, from June 30, 1946, to August 18, 1958, the United States also conducted 67 underwater surface and atmospheric tests of atomic and thermonuclear weapons in the Marshall Islands.³³

	Date	Site	Type	Yield (kt.)	Operation	Test
1.	6/30/46	Bikini	Airdrop	21.00	Crossroads	Able
2.	7/24/46	Bikini	Underwater	21.00	Crossroads	Baker
3.	4/14/48	Enewetak	Tower	37.00	Sandstone	Xray
4.	4/30/48	Enewetak	Tower	49.00	Sandstone	Yoke
5.	5/14/48	Enewetak	Tower	18.00	Sandstone	Zebra
6.	4/7/51	Enewetak	Tower	81.00	Greenhouse	Dog
7.	4/20/51	Enewetak	Tower	47.00	Greenhouse	easy
8.	5/8/51	Enewetak	Tower	225.00	Greenhouse	George
9.	5/24/51	Enewetak	Tower	45.50	Greenhouse	Item
10.	10/31/52	Enewetak	Surface	10,400.00	Ivy	Mike
11.	11/15/52	Enewetak	Air Drop	500.00	Ivy	King
12.	3/1/54	Bikini	Surface	15,000.00	Castle	Bravo
13.	3/26/54	Bikini	Barge	11,000.00	Castle	Romeo
14.	4/6/54	Bikini	Surface	110.00	Castle	Koon
15.	4/25/54	Bikini	Barge	6,900.00	Castle	Union
16.	5/4/54	Bikini	Barge	13,500.00	Castle	Yankee
17.	5/13/54	Enewetak	Barge	1,690.00	Castle	Nectar
18.	5/2/56	Bikini	Air Drop	3,800.00	Redwing	Cherokee
19.	5/4/56	Bikini	Surface	40.00	Redwing	Lacrosse
20.	5/27/56	Enewetak	Surface	3,500.00	Redwing	Zuni
21.	5/27/56	Bikini	Tower	0.19	Redwing	Yuma
22.	5/30/56	Enewetak	Tower	14.90	Redwing	Erie
23.	6/6/56	Enewetak	Surface	13.70	Redwing	Seminole
24.	6/11/56	Bikini	Barge	365.00	Redwing	Flathead

³³ U.S. Department of Energy, United States Nuclear Tests, Nuclear Claims Tribunal.

25.	6/11/56	Enewetak	Tower	8.00	Redwing	Blackfoot
26.	6/13/56	Enewetak	Tower	1.49	Redwing	Kickpoo
27.	6/16/56	Enewetak	Air Drop	1.70	Redwing	Osage
28.	6/21/56	Enewetak	Tower	15.20	Redwing	Inca
29.	6/25/56	Bikini	Barge	1,100.00	Redwing	Dakota
30.	7/2/56	Enewetak	Tower	360.00	Redwing	Mohawk
31.	7/8/56	Enewetak	Barge	1,850.00	Redwing	Apache
32.	7/10/56	Bikini	Barge	4,500.00	Redwing	Navajo
33.	7/20/56	Bikini	Barge	5,000.00	Redwing	Tewa
34.	7/21/56	Enewetak	Barge	250.00	Redwing	Huron
35.	4/28/58	Nr Enewetak	Ballon	1.70	Hardtacki	Yucca
36.	5/5/58	Enewetak	Surface	18.00	Hardtacki	Cactus
37.	5/11/58	Bikini	Barge	1,360.00	Hardtacki	Fir
38.	5/11/58	Enewetak	Barge	81.00	Hardtacki	Butternut
39.	5/12/58	Enewetak	Surface	1,370.00	Hardtacki	Koa
40.	5/16/58	Enewetak	Underwater	9.00	Hardtacki	Wahoo
41.	5/20/58	Enewetak	Barge	5.90	Hardtacki	Holly
42.	5/21/58	Bikini	Barge	25.10	Hardtacki	Nutmeg
43.	5/26/58	Enewetak	Barge	330.00	Hardtacki	Yellowwd
44.	5/26/58	Enewetak	Barge	57.00	Hardtacki	Magnolia
45.	5/30/58	Enewetak	Barge	11.60	Hardtacki	Tobacco
46.	5/31/58	Bikini	Barge	92.00	Hardtacki	Sycamore
47.	6/2/58	Enewetak	Barge	15.00	Hardtacki	Rose
48.	6/8/58	Enewetak	Underwater	8.00	Hardtacki	Umbrella
49.	6/10/58	Bikini	Barge	213.00	Hardtacki	Maple
50.	6/14/58	Bikini	Barge	319.00	Hardtacki	Aspen
51.	6/14/58	Enewetak	Barge	1,450.00	Hardtacki	Walnut
52.	6/18/58	Enewetak	Barge	11.00	Hardtacki	Linden
53.	6/27/58	Bikini	Barge	412.00	Hardtacki	Redwood
54.	6/27/58	Enewetak	Barge	880.00	Hardtacki	Elder
55.	6/28/58	Enewetak	Barge	8,900.00	Hardtacki	Oak
56.	6/29/58	Bikini	Barge	14.00	Hardtacki	Hickory
57.	7/1/58	Enewetak	Barge	5.20	Hardtacki	Sequoia
58.	7/2/58	Bikini	Barge	220.000	Hardtacki	Cedar
59.	7/5/58	Enewetak	Barge	397.00	Hardtacki	Dogwood
60.	7/12/58	Bikini	Barge	9,300.00	Hardtacki	Poplar
61.	7/14/58	Enewetak	Barge	Low	Hardtacki	Scaevola
62.	7/1/58	Enewetak	Barge	255.00	Hardtacki	Pisonia
63.	7/22/58	Bikini	Barge	65.00	Hardtacki	Juniper
64.	7/22/58	Enewetak	Barge	202.00	Hardtacki	Olive
65.	7/26/58	Enewetak	Barge	2,000.00	Hardtacki	Pine
66.	8/6/58	Enewetak	Surface	Fizz	Hardtacki	Quince
67.	8/18/58	Enewetak	Surface	0.02	Hardtacki	Fig

Table 1. List of atomic tests in the Marshall Islands.

The most powerful of those tests was the "Bravo" shot, a 15 megaton device detonated on March 1, 1954, at Bikini atoll. That test alone was equivalent to 1,000 Hiroshima bombs. While the Bravo test is well known, it should be acknowledged that 17 other tests in the Marshall Islands were in the megaton range and the total yield of the 67 tests was 108 megatons, the equivalent of more than 7,000 Hiroshima bombs. From 1945 to 1988, the U.S. conducted a total of 930 known nuclear tests with a combined yield estimated to be 174 megatons. Approximately 137 megatons of that total was detonated in the atmosphere. In other words, while the number of tests conducted in the Marshall Islands represents only about 14% of all U.S. tests, the yield of the tests in the Marshalls comprised nearly 80% of the atmospheric total detonated by the U.S.³³



Fig. 4. Detonation of Bravo.

Numerous Marshallese have suffered from cancers, leukemia and other life-threatening diseases directly connected to nuclear radiation poisoning.

In 1960 the US Army announced that Kwajalein had been given 'a brand new lease of life'. Once again, Marshallese land was to be used for military experiments to try out the accuracy of missiles. Kwajalein was to be used as target practice for intercontinental ballistic missiles (ICBMs), fired from Vandenberg Air Base in

³³ <http://nuclearhistory.tripod.com/testing.html>.

California, 4,800 miles away. Testing of intercontinental missiles continues today. Under the terms of the Revised Compact of Free Association the United States will retain rights to the Kwajalein atoll until 2016.³⁵ At the time of writing the Kwajalein landowners are reluctant to renew the lease for Kwajalein under the former conditions.

The American Trusteeship of the Marshall Islands brought preparation for greater self governance: the Congress of Micronesia, schools with an English curriculum, and Peace Corps Volunteers. Until 1996 hundreds of volunteers are dispatched to the remotest atolls and islands.

D) Republic of the Marshall Islands.

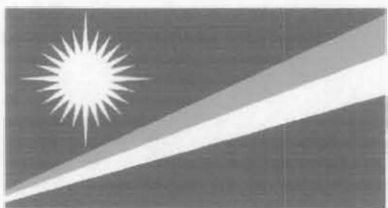


Fig. 5. Flag of the Republic of the Marshall Islands.

In 1979 the government of the Marshall Islands is officially established and the country becomes self governing with *Iroojlaplap* Amata Kabua elected as the first president of the Marshall Islands. One year later the Airline of the Marshall Islands (AMI) begins operation serving eight locations; Enewetak, Bikini, Kwajalein, Mili, Likiep, Maloelap, Wotje, and Majuro. In 1982 the official name is changed to the Republic of the Marshall Islands (RMI).

In 1983 voters in the RMI had approved the Compact of Free Association with the United States, in 1986 the U.S. Congress approved the Compact, which granted the RMI its sovereignty and provided for aid and U.S. defense of the islands in exchange for continued U.S. military use of the missile testing range at Kwajalein Atoll. In 1990 the UN Security Council terminates the RMI's trusteeship status, and, in 1991, the RMI joins the United Nations.

1988 the Nuclear Claims Tribunal started addressing personal injury and property claims resulting from the nuclear testing in the Marshall Islands.³⁶ In 1994, the U.S. Department of Energy began releasing thousand of previously classified nuclear test era documents, many of which confirmed the wider extent of the fallout contamination in the Marshall Islands, and a five-year study of 432 islands in the Marshall Islands showed that 15 atolls and single islands - almost half of this nation - were dusted by radioactive fallout from the U.S. nuclear weapons tests of the 1950s.³⁷ As a result of this officials of

³⁵ http://www.unc-gbcs.org/getinvolved/viewarticle.php?csa_articleId=205.

³⁶ <http://nuclearhistory.tripod.com/testing.html>.

³⁷ <http://resourcescommittee.house.gov/106cong/fullcomm/99may11/debrumt.htm>.

the Marshall Islands testified before President Clinton's Advisory Committee on Human Radiation Experiments in Washington, D.C., stating that fallout exposed many more than the four atolls acknowledged by the U.S. government, and that islanders were purposefully resettled on contaminated islands so the U.S. could study the long-term effects of radiation.³⁸ In 2004, at the time of writing these compensation claims have not been settled. Today, as a result of American testing, about twenty percent of the land of the Marshall Islands is unavailable to the people, because of toxic radioactive wastes due to the nuclear testing, and because of continued use, principally at Kwajalein, by the United States.³⁹

Amata Kabua died in 1996, serving his 5th term as president of the Republic of the Marshall Islands, and his cousin Imata Kabua was selected to finish the term. In 2000, Kessai Hesa Note was elected as president. Under his term the First Compact of Free Association expired, and, in 2003, the Second Compact of Free Association came into effect and Kessai Hesa Note is reelected as president.

³⁸ <http://resourcescommittee.house.gov/106cong/fullcomm/99may11/debrumt.htm>.

³⁹ http://www.unc-gbcs.org/getinvolved/viewarticle.php?csa_articleId=205.

II. ENVIRONMENTAL SETTINGS.

2.1. Physiographic and Biological Setting.

Located in the central Pacific between 4° and 15° north latitude and 160° and 173° east longitude, the Republic of the Marshall Islands consists of 29 low lying coral atolls and five coral islands. Twenty-two of the atolls and four of the islands are presently inhabited. The atolls and islands are situated in two almost parallel chain-like formations. The eastern group is the Ratak (Sunrise) Chain and the western is the Ralik (Sunset) Chain, which together extend about 700 miles (1,130 km) north to south and approximately 800 miles (1290 km) east to west. Surrounded by ocean, the Republic is more than 2,000 miles (3,230 km) from the nearest trading centers, Honolulu and Tokyo. Its nearest neighbors are Kiribati to the south and the Federated States of Micronesia to the west.

There are approximately 1,225 islets spread across an area of over 750,000 square miles (1.2 million square km). With a total land area of over 70 square miles (110 square km), a mean height of 7 feet (2 meters) above sea level, and soils that are nutrient poor, the nations agricultural base is limited. The marine resource base, however, is extensive. The combined lagoon area totals 4,037 square miles (6,511 square km). Coral reefs fringe the atolls and serve as the only defense against the ocean surge. The clearance of the reef in the sections that are covered by water is usually no more than a couple of feet.¹

Generally speaking, an atoll consists of a series of low lying islets and submerged reefs arranged about a central lagoon, which mixes with the open ocean via one or more channels and/or shallow passes. In the Marshall Islands, the islets composing an atoll usually form an oval shape around a central lagoon of 150 feet (45 m) average depth. The surrounding ocean depth plunges to over 5,000 feet (1,525 m) within two miles (3 km), and to 10,000 feet (3,050 m) within ten miles (16 km) of the typical atoll.²

Dye³ suggests a probable development history for the Marshall Islands; he states that approximately 70 million years ago the volcanic cores of the Marshall Island atolls erupted forming new volcanic islands. The islands, slowly subsiding but standing above sea level, were colonized by species of reef-building corals, and the process of reef flat construction began approximately 40 million years ago.

¹ Permanent Mission of the Republic of the Marshall Islands to the United Nations, 1992.

² Fosberg 1990; Wiens 1962.

³ Dye, 1987.

Underwater ocean maps show that there is also an abundance of underwater seamounts, some of which reach almost to the surface, such as Keats Bank east of Mili Atoll. Most of these guyots are aligned along the same axes as the Ralik and Ratak Chains, so that these underwater features as a whole have recently been termed Ralik and Ratak Ridge.⁴



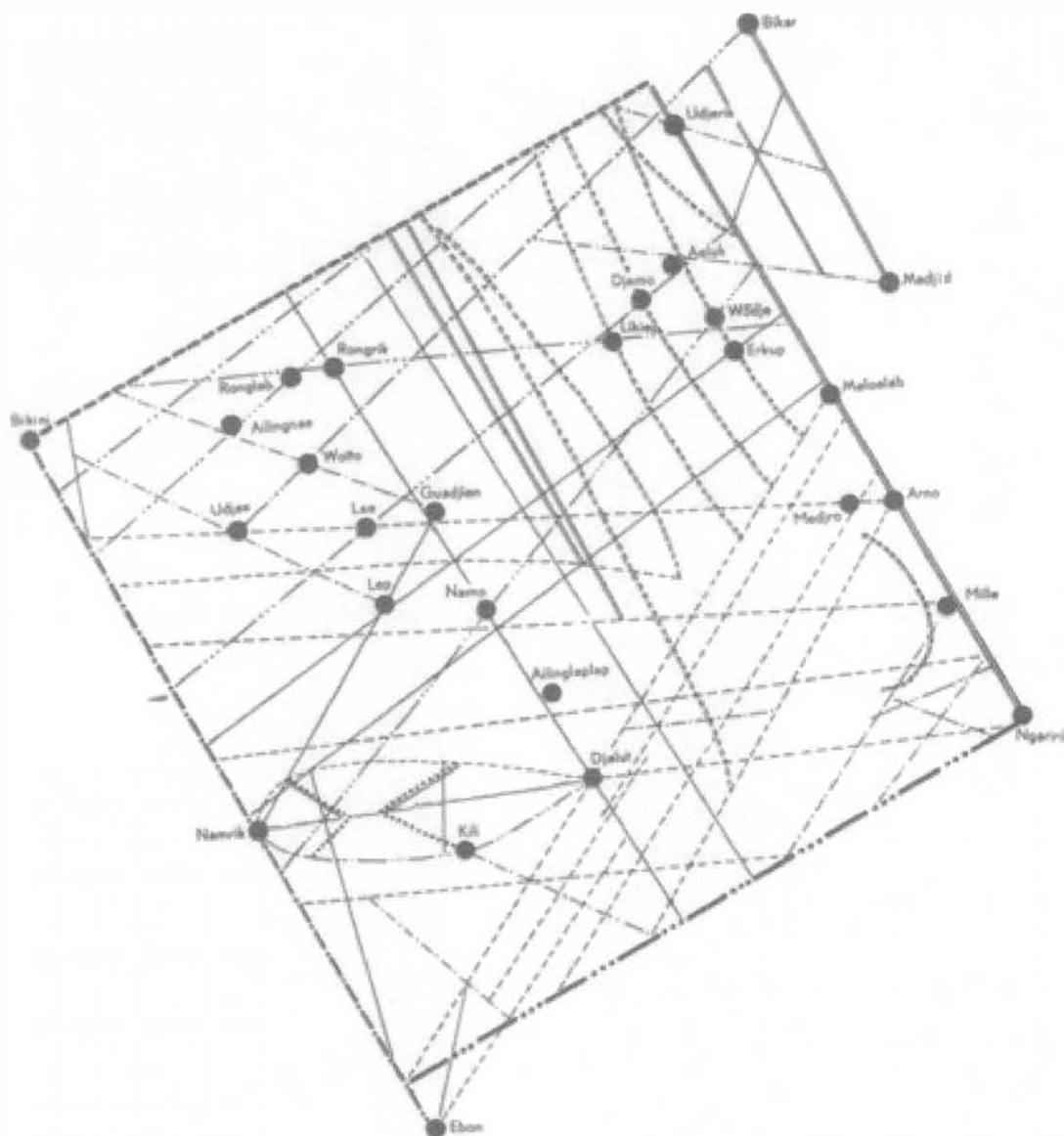
Fig. 6. Lagoon of Wotho Atoll.

All atolls and islands in the Marshall Islands have *joorāne*, land signs, as well as *joormeto*, sea signs, which indicate a location on an island or on the ocean, as well as the relationship between the land signs or the land itself and the sea sign. Erdland⁵ describes this Marshallese marker system:

The configuration of these beings, which are on their respective atolls either lifeless objects, birds or fish, which I am going to present might look at first sight as a simple list. Of course some of the names might be without meaning now, because the history of the respective person does no longer live in the memory of the seafaerers. Though many of them allow us a deep glimpse into the beliefs of the Marshall islanders and further on they represent a part of the unwritten history of the islanders. Because these names have a special value for the localization of myths and fairy tales. Some of them are mentioned in the legends, therefore they can be considered historic to a certain degree. ... It is remarkable that some of these *ākejab* localized on land have children on sea, ... These children of the *ākejab* are birds or fish or other lifeless drifting objects which stay at a certain distance to the atolls

⁴ Spannemann, 1993.

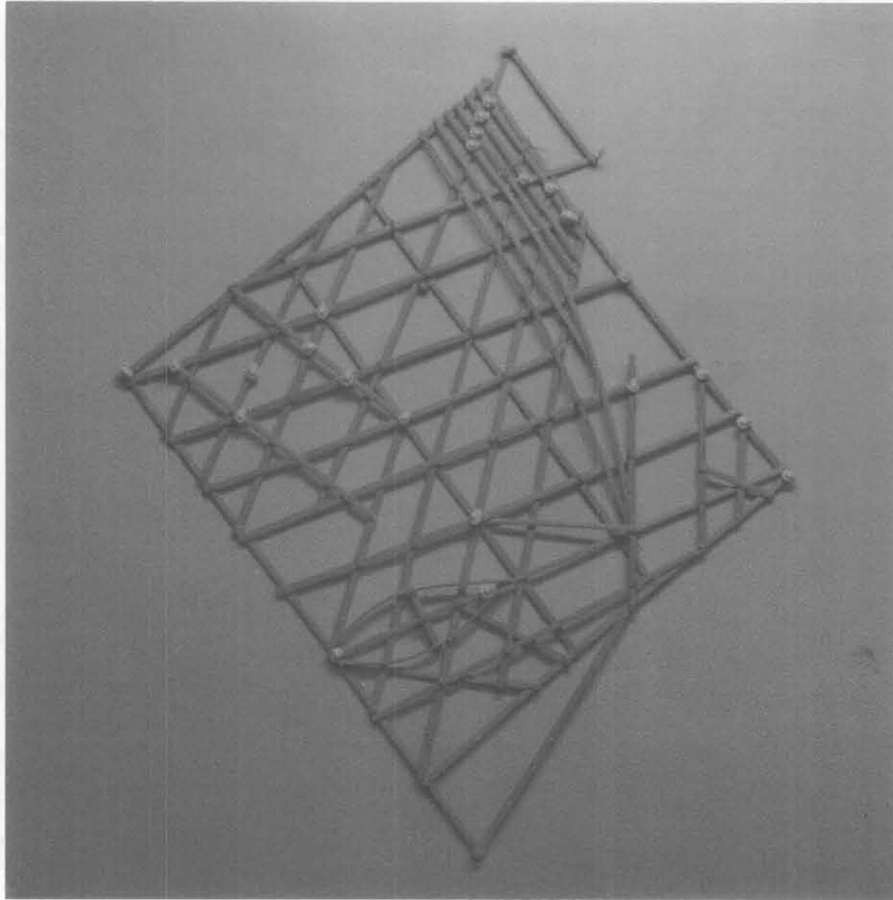
⁵ Erdland, 1914:346-347; see also p. 30, 83.



Map 2. *Meto*, Stick chart of the Marshall Islands.

Long before the Atolls of the Marshall Islands have been discovered and charted by European and American ships, Marshallese had already put their archipelago, atolls and waterways 'on the map' indicating them in Marshallese stick charts.

...., sea charts are made of straight and curved small mid ribs of palm fronds. Small white sea shells (Cypraea or Melampus) indicate the islands. The maps do not indicate the exact geographical position of the islands but give information about the condition of the sea between the islands, in particular the condition of the surf besides of other matters of significance for the course. There is no regulated system for the sea charts and one school does not know the teachings of the other. Thus a sea chart can only be interpreted correctly by its maker ⁶



Map. 3. Recent stick chart.

Today, stick charts can be bought in all handicraft shops. Due to their often-appealing design they sell well, but no longer contain any scientific knowledge, as they are only replicas of old samples.

⁶ Krämer und Nevermann, 1938:221.

2.2. Climate.

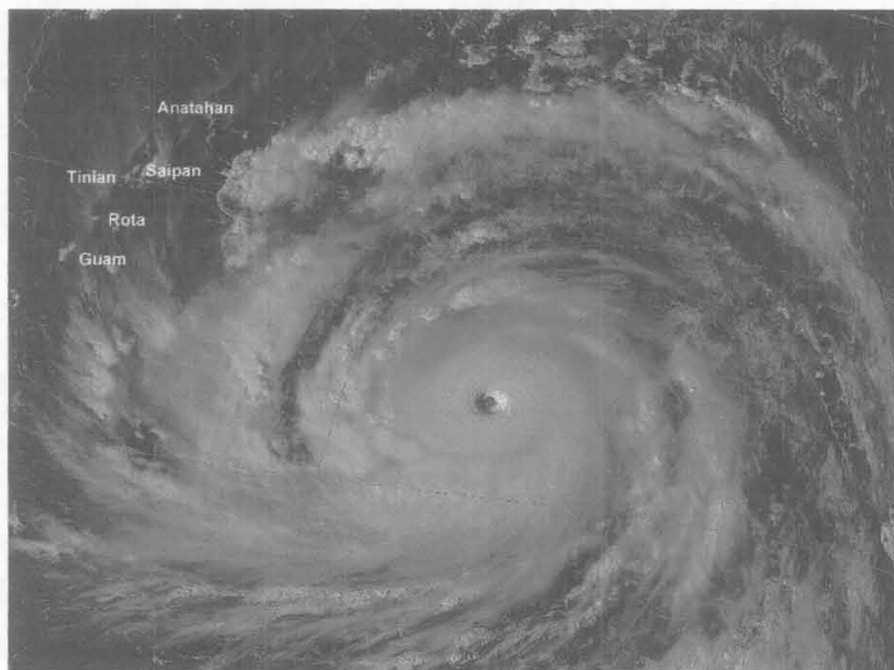


Fig. 7. Typhoon Paka, 1997.

The climate of the Marshall Islands is predominantly a tradewind climate with the tradewinds prevailing throughout the year. Minor storms of the easterly wave type are quite common from March to April and October to November. The islands are not generally considered to be in the typhoon belt, but because they are low with small land masses they are easily subject to flooding during storms. Tropical storms are rare but do occur. The first typhoon recorded for the Marshall Islands happened in the 1840s. It was on Likiep Atoll and cost the lives of the greatest part of the population.

The only atoll for which complete weather data exists is Majuro, where the U.S. National Oceanic and Atmospheric weather station is located. Annual rainfall varies considerably from north to south; the southern atolls receiving 120-170 inches (300-400 cm), and the northern atolls receiving 40-70 inches (100-175 cm).⁷ The highest rainfall generally occurs during the *añõn rak* season, also known as breadfruit season (June to October). Precipitation is generally of the shower type; however continuous rain is not uncommon. During the *añõn ean* season, also known as the pandanus season (January to March), the rainfall decreases with February noted to be the driest month of the year.

⁷ NOAA, 1989.

One of the outstanding features of the climate is the extremely consistent temperature regime. Daily temperatures for both northern and southern atolls fluctuate between the high seventies and mid eighties with no seasonal variation. The range between the coolest and the warmest months averages less than one degree Fahrenheit. Nighttime temperatures are generally 2-4 degrees warmer than the average daily minimum temperatures, which usually occur during heavy showers in the daytime.

In spite of this the weather is always hot and humid with an average temperature of 81° degrees Fahrenheit all year round.⁸

2.3. Vegetation.

There is no record of the original vegetation of the Marshall Islands. The precise date when plants first occurred in the Marshall Island atolls is still debated.⁹ It is possible that 44 species of plants, including various herbaceous species, shrubs, and trees drifted to the southern Marshalls before the arrival of man.¹⁰ The early inhabitants probably altered the vegetation of the atolls by introducing new species. During the twentieth century coconut plantations, developed by German, Japanese and American administrations replaced most of the original vegetation of many atolls.¹¹ Today as much as 60 per cent of the nation's land area is covered with coconut (*Cocos nucifera*).¹²

Many areas not dedicated to coconut plantations have been put to other uses such as cultivation of taro and other plants. Species that have been introduced are reliant on the presence of humans for propagation.¹³ The vegetation that grows in the Marshall Islands include mixed broadleaf forest composed of a small number of tree species (*Tournefortia argentea*, *Guettarda speciosa*, *Pisonia grandis*, *Pandanus tectoris*, *Allophylus timoriensis*, *Cordia subcordata*, *hernandia Sonora*); a few shrubs (*Scaevola sericea*, *Suruana maritima*, *Pemphis acidula*, *Tournefortia*); and a layer of ground cover consisting of several species (*Lepturus repens*, *Thuarea involuta*, *Fimbristylis cymosa*, *Polypodium scolopendria*). Several mono specific forests occur in the Marshall Islands (*Neisosperma*, *Pisonis grandis*, *Turnefortia argentea*).¹⁴ Shrubs such as *Pemphis acidula*, *Suriana maritima*, and *Scaevola sericea* typically grow along shorelines while

⁸ Permanent Mission of the Republic of the Marshall Islands to the United Nations, 1992.

⁹ Dye, 1987.

¹⁰ Hatheway, 1953.

¹¹ Fosberg, 1990.

¹² OPS, 1991.

¹³ Fosberg, 1990.

¹⁴ Fosberg, 1990.

herbaceous plants occur mainly under forests. Limited strands of mangroves (*Bruguiera*) occur on larger islands of the wet southern atolls¹⁵ and are found in swampy areas containing brackish. Several of the cultivated plants (*Musa*, *Cocos nucifera*, *Artocarpus altilis*, *Cyrtosperma chamissonis*, *Pandanus tectorius*) are commonly found on the inhabited islets of the Marshalls. These various plants serve as windbreakers, salt spray repellents, food, and are used by Marshallese for plaiting and medicinal purposes.

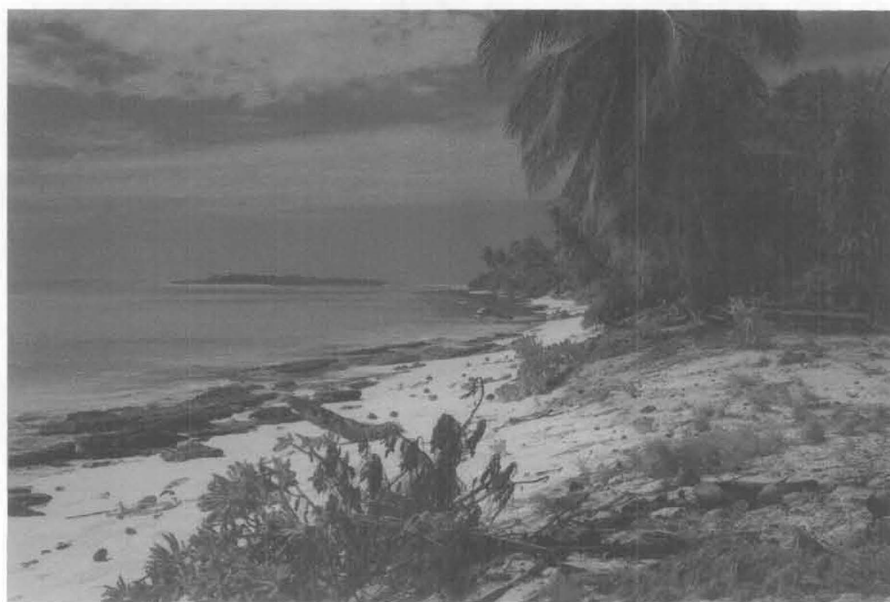


Fig. 8. Beach vegetation Wotho, Atoll.

On most of the islets there is a strip of natural shrub forest along the seaward coast that serves as a windbreak. This mainly consists of mixed broad leaf forest and shrub with *Scaevola* on its outer edge.¹⁶

2.4. Sea Level Changes.

Due to being so low in elevation, the recent sea level rise caused by global warming or "greenhouse effect" is a critical threat to the Marshall Islands. The rising of the sea during the last two decades has devastated the low-lying atolls economically and culturally. It is estimated that the normal trend for sea level rise has been approximately 1.3 inch to 3 inches increase over the span of 100 years. However, it is figured that within the next 50 years there will be a 1.7 inch increase alone. As predicted by scientists (global warming red alert), the islands of the Marshall's are among the Pacific nations

¹⁵ Stemmerman, 1981.

¹⁶ Fosberg 1990.

that will be affected by the rising of the sea level within the next fifteen to twenty years. Under normal conditions, coral and the other components of the coral reef can maintain a healthy landmass. At present, visibly eroded scrublands are along the coastline and most of the vegetation growing in this area will soon be washed away by the incoming tides. Any archaeological sites that are located within this area will vanish and their significant historical value will be lost to the tides.

For many years the Marshall Islands Government has been concerned with the issue of global change. As the Marshall Islands lie in open ocean and are very close to sea level, the vulnerability to waves and storm surges is, at the best of times, precarious. Although the islands, have by no means been completely free from weather extremes, they are more frequently referred to in folklore as '*jolel jen Anij*', gift from the God, in the sense that the Marshall islands are a god given sanctuary, away from the harshness of the other areas, is therefore a notion that is part of the sociocultural identity of the people. When any variation of the weather hits the Marshall Islands, the effects can be severe. When typhoon Roy passed over Lib in late 1988, the islands and its people were hard hit and outside food had to be brought in. The El Niño induced drought, in 1998, brought consequences that caused the entire Marshall Islands to be declared disaster areas, and emergency water making equipment and food supplies were shipped in from outside.

Given the physics of wave formation and the increasing frequency and severity of storms, the Marshall Islands will likely be at even greater risk of total inundation. The relative safety that the islands have historically provided is now in jeopardy. The impacts are not limited to the Marshalls and its immediate neighbors. The Marshall islands are often referred to as the "front line state" with regard to the climate change issues. It is important to realize that once the potentially catastrophic effects begin to appear, it is likely too late to prevent further warming that will threaten virtually all of the world's coastal regions.¹⁷

¹⁷ Permanent Mission of the Republic of the Marshall Islands to the United Nations.

III. SOCIETY.



Fig. 9. Man, with spear, ca. 1900.



Fig. 10. Men fishing, Wotho Atoll 2004

Marshallese society is generally matrilineal and composed of a number of matrilineal *jowi*, clans. The most important descent group is the *bwij*, lineage. The *bwij* is the matrilineal system in which all land rights are passed down through the mother's side. Therefore the whole group is descended, mother to daughter, from a common ancestor or *jowi*, clan. There were at least forty-four clans spread over the atolls and though no one remembers how members of a *jowi* were related by blood, members consider themselves related. The *alap*, the lineage head, is usually the eldest male of the senior line of the lineage, he is steward of the lineage land holdings.

With slightly less than 70 square miles of land in the entire archipelago and prime settlement areas being extremely limited, land has long been the most highly prized possession in the Marshall Islands and control of land is the central theme of Marshallese culture. The basic land division of the Marshall Islands is a *wāto*. One or more *wāto* are held and administered by a matrilineage line. Title is divided and shared by several levels of the society. In the pre-Christian era, the Marshallese social system distinguished between two major classes: *irooj* (chiefs) and *kajoor* (commoners). The *irooj* hold title over an island or atoll. Among the *irooj* the *iroojlaplap*, paramount chiefs, were the ones with the most power while the *iroojiddik* of the lesser chiefs, shared the power and many of the privileges, but to a limited degree. Today the term *kajoor* is not used so often as the class has been divided into the *alap* (land managers) and the *rijerbal*, workers. The *alap* organizes and directs lineage activities and allots lands for use to different descent lines within the lineage. The *alap* and the *rijerbal*, workers, make up the subjects of the *kajoor*, commoners, and render services to the *Irooj* in exchange for the use of land. The *Irooj* managed the land in a way that not only provided themselves with food but also provided for the *kajoor*, *alap* and *rijerbal*. The *kajoor* in return cultivated the land, harvested the water surrounding the atoll, and performed *ekkan*, tributes to the *Irooj*. The procedure is a cycle that has been repeating itself for hundreds of years. The common

members of a lineage have land rights, although the *alap* and the *rijerbal* change land ownership. The *Iroojlaplap* is the only individual with permanent land rights, unless defeated in war.

Historically one *Iroojlaplap* (paramount chief) was able to extend his control over most of the Ralik Chain (except Enewetak and Ujelang). Periodically the *Irooj* visited these islands to collect tribute. The Ralik Chain was subsequently divided into two districts, one including Namu and the north islands, the other Jabat, Ailinglaplap, and the islands south. Although all of these islands were owned by the *Iroojlaplap* he rarely visited those further north than Kwajalein and Ujae, because they were isolated and somewhat impoverished.¹ Within the northern atolls, stratification was less elaborate, in comparison to those in the south.

Ratak was likewise structured but far less centralized. The whole chain was never integrated under a single *Iroojlaplap*, although the *Iroojlaplap* of Maloelap was able to put the islands to the north (except for Mejit) under his rule. Majuro and Arno broke away from this union, however, and again became independent political entities. The Ralik and Maloelap associations were unstable and varied in size as local lesser *irooj* tested the strength of their islands against that of the *Iroojlaplap*. This trend towards instability encouraged the *Iroojlaplap* to move his residence from island to island to make his control evident to the local lesser *irooj*.

¹ Alkire, 1977.

IV. ORAL TRADITIONS.

Prior to the introduction of a written language, Marshallese culture was largely an oral society where information was maintained through oral traditions. Elder generations passed down beliefs, values and philosophies by telling stories and chants to the younger generations. Many places in the Marshall Islands, which have special cultural significance, offer a wealth of folklore associated with their pasts. Traditional sites are natural features in this environment to which oral traditions are attached. Each atoll and island has its own history and its stories relating to people, settlements and topographical features.

Mc Arthur¹ states that while islanders can usually recall the names and basic events of the demigod of their atoll, very few can identify the names and stories of those from other atolls with the exception of Loktanur and Jebro for Ailinglaplap, Limejokeded, Jemeliut and Letao of Majuro and the female Lijenenbwe of Namu. Loktanur, Limejokedad, and Lijenenbwe are said to be sisters. Lijenenbwe was the 'mother' of Liwatonmour, who was believed to have remained at Namu, in the form of a basalt rock. Some accounts suggest that she had originally come from the Ratak Chain in the east and that one of her sisters, Lidebdebju, remains as a basalt rock on Aur Atoll. The Ijjidik *jowi* were the first descendants of the Lijenenbwe to emerge as a clan and that later the Erroja *jowi* became dominant. Johnson and Johnson² include a story in their collection that claims that the Ralik and Ratak Chains were peopled from basalt pillars, one for each chain of islands. Liwatonmour, a pillar in Namu, supposedly bore the first Ralik chief and her sister Lidebdebju, on Aur Atoll, the first Ratak chiefs.

There are many variations in the creation accounts. Regardless, the different versions introduce key characters important to Marshallese cosmology. According to Erdland's sources³ the Ralik version of the creation begins with the a being Lowa (or Loa) who lived on the sea, which was bounded by an extensive, low table reef in the south and a swamp in the north. Lowa spoke to the sea, 'See your island reef' and reef formation appeared. Then he said, 'See your sand', and the earth appeared on the reef. Again he spoke, 'See your plants', and plants were growing. Again he spoke, 'See your birds', and they appeared. One of the birds, white gull, flew up, and while circling, spread out the sky, like a spider weaving its web between two bushes. When Lowa finally said: 'See

¹ Mc Arthur, 1995.

² Johnson and Johnson, 1980.

³ Erdland, 1914:308.

your human beings', four human beings appeared, one in each direction: Iroiiddrikrik in the west; LoKomraan or Lakameran (Daymaker) in the east; Lorak or Rerik in the south, Lajiminanmen, Lajbuineamuen, or Lalikian in the north.

Then a boil grew on the leg of Lowa, from which, when it bursts open, emerged Wulleb and Limdunanji. Limdunanji gave birth to two male beings: Lanej (Master of the heights) and Lewoj (Master of the Middle of the Island).

One day Wulleb and his sister's children sat on a stalk of arrowroot, which grew up to the vault of the sky and enabled them to ascend. Their peaceful companionship, however, was of short duration. Soon the brothers plotted to kill their uncle, and Wulleb, Lanej and Lewoj waged war in the dome of the sky. After they had observed each other mistrustfully for several nights, Wulleb's retina tore and he fell down from the dome of the sky on Imroj. Thus matrilinearity begins.

When he sighted aloud as the result of this fall, Iroiiddrikrik awoke, came to him and spoke: 'Well this is Wulleb, and he has fallen from the sky!' Wulleb answered, 'My nephews and I we watched one another by night; then when my retina tore, I fell down.' Iroiiddrikrik then spoke, 'Let us go into the hut'. They went in and three months passed.

When Wulleb had spend some time with Iroiiddrikrik, a large and extremely painful boil developed on the extensor of this leg. After it became ripe it broke open; two little boys issued from it, the elder of who was called Jemeliut, and the younger Letao.

Wulleb sent them to Lijebake (Tortoise Woman) on Bikar Island, in order to get magical tortoise shell from her. Lijebake - who with her granddaughter Lijwei, had come from the Gilbert Islands - gave Letao a magical potion, which he drank despite all his disgust. In doing so he became a crafty hero who not only conquered several atolls, but also embittered the life of his brother Jemeliut, that the latter settled on Majuro Atoll, married there, and finally changed into a silver tree. Letao went everywhere seeking adventure and met sudden death in the Gilbert Island.

According to Reymond⁴ in *Das Weltall*, the Ratak version of creation starts with two serpents (or worms), the male was called Wulleb and the female, Lehman (Woman Rock). They developed into human form in a shell. To make a larger world Wulleb lifted the arch of the shell using a stick to expand it to the present height of the sky and width of the ocean.

⁴ Reymond, 1899:9.

From a boil on Wulleb's forehead emerged Lewoj and Lanej, who were sent to the sky by Wulleb in order to put up the stars. Lejman also had two female offspring, Lino (tidal wave) and Ni (coconut).

Then Wulleb collected in a coconut shell the blood from a cut on his leg, and from this blood came Letao (one with the white eyebrow, the powerful, the crafty, the favored one) and Jemelud (father of the rainbow). They went out to conquer. Prior to the conquest of the islands they had already ascended to the vault of heaven in order to defeat their older brothers. That their ascent in the north was successful is clearly shown by the fact that the Northern Hemisphere is less far less inhabited (studded with stars) than the Southern Hemisphere. A bird flew to tell one of the sky gods their plans to defeat their brothers. This god captured Letao's small son, set him impossible tasks, which the son accomplished, finally he lowered himself to earth on a thread. Letao had settled on Mejit. Bikar was formed by a rock that Letao threw at the bird, which had come to spy on him.

Lowa			
Wulleb		Limdunani	
Jemeliut	Letao	Lanej	Lewoj

Table 2. The cosmological genealogy of the Ralik Chain.

Wulleb Lejman					
Jemeliut	Letao	Lanej	Lewoj	Lino	Ni

Table 3. The cosmological genealogy of the Ratak Chain.

Other accounts add information, though some are quite contradictory. According to Knappe the first being was Wulleb who lived with his wife on the invisible island of Eb. One day a tree grew from Wulleb's head, splitting his skull. Out came Letao and Jemelut. Letao quarreled with his father and went away flying through the air with a basket of earth, some of which spilled through a hole, so that the islands came into existence in the sea. Then Letao planted the land, created land and sea animals, and married his mother. Then the bird Babuk came with the first female sexual organ in his

beak. Letao hid it. Lejman found it and put it on. Neither wore clothes at this time and but Lejman became ashamed and took two mats as covering (beginning of clothing). From their union came the first people. In this version it is Letao who is credited with the creation of animals and plants. According to Knappe, the woman was not ashamed because of her nakedness, but because she had an incestuous relationship with her son.

In other writings, there are claims that it was Iroijrikrik who married the woman Lijebake of Bikar.⁵ Erdland⁶ tells of a story in which Jemeliut has an aunt Limejokeded. After stealing bananas and being caught by her Jemeliut become an ogress and gives birth to mosquitoes, flies, mudfish and the warrior Toltoliben.

Davenport's version states that Lowa sent a man who put all the islands in a basket and arranged them, first the Carolines, then the two chains of the Marshalls, Namorik was dropped out of order. The basket was eventually thrown down too, and became Kili.

In several versions, Lowa sent two men to tattoo (on Ailinglaplap) all the living creatures, thus giving them colors and markings.⁷ Lowa sent two men down to Bikini with measurements for the first canoe.⁸ A woman bore a son and a coconut. At his request she buried the coconut, which grew into the first coconut tree. Again at his request she husked a coconut and the husks floated to Iroijirilik, who made sennit with them. The sennit was taken by a bird. It flew into the air with the rope, thus making a net and widening and raising the sky, as well as holding it up. Rain is water separated into drops falling through this net.⁹ Everyone went to Namu to honor Liwatonmour, the founder of the Irooj clan. From this gathering came all clans, with Irooj as the highest.¹⁰

There are many other stories, which explain the origin of the sailing canoe such as Loktanur and her son's canoe race,¹¹ the origin of navigation,¹² origin of animals, breadfruit,¹³ and taro.¹⁴

⁵ Krämer und Nevermann, 1938.

⁶ Erdland, 1914:

⁷ Davenport 1953, Chambers 1969, Buckingham 1949.

⁸ Buckingham 1949, Davenport 1953.

⁹ Krämer und Nevermann, 1938; Chambers 1969; Buckingham 1949.

¹⁰ Chambers 1969.

¹¹ Krämer und Nevermann, 1938; Erdland, 1914; Buckingham 1949; Davenport 1953.

¹² Buckingham, 1949.

¹³ Mackenzie, 1960:

¹⁴ Bikajle, 1960.

Before the arrival of the Missionaries a myriad of supernatural beings inhabited the Marshall Islands. Each of them could be named individually and was outfitted with special characteristics, life circumstances, and associated stories. Marshallese people had to share their atolls and islands with them and this cohabitation was made possible due to respect, strict rules, and regulations.

Today this pantheon of the netherworld is no longer as active as in the past and is usually subsumed under the name of *timon*. In this report some of the old believes and stories are brought back to life. They had happened *etto im etto* -- a long, long time ago

4.1. *Kajin Majel* - Marshallese Language.

All people of the Marshall Islands speak *kajin majel*, Marshallese. In former times there were two distinctive dialects, the Ratak Chain dialect and the Ralik Chain dialect. Due to the urban centers Majuro and Ebeye in the Ratak Chain, today these two dialects are merging with the Ratak dialect having more speakers and seeping into Ralik speaking communities. The English language is another strongly felt influence. English as a second language is taught in elementary school, as well as in High School and education in the Marshall Islands College is entirely in English. Many Marshallese attend school in the United States or live abroad for some time. The effect of this exposure is that English is more and more a necessity for many people and the Marshallese language has many English loanwords.

There is no accepted orthography for the Marshallese, consequently a considerable variation of spellings for one word can be found in the literature. The spelling employed in this report tries to follow the Marshallese-English Dictionary. Names and place names are written according to the local Government. In general, this text represents the Marshallese language in *italics* (except in cases of place names or proper names) and presents the English translation or equivalent after the Marshallese.

Many of the Marshallese terms used in this report derive from German literary sources, thus, do not correspond with today's writing, and often are no longer general knowledge or known at all. For all these word the general rule is to pronounce them according to the German alphabet.

V. TRADITIONAL FISHING METHODS.

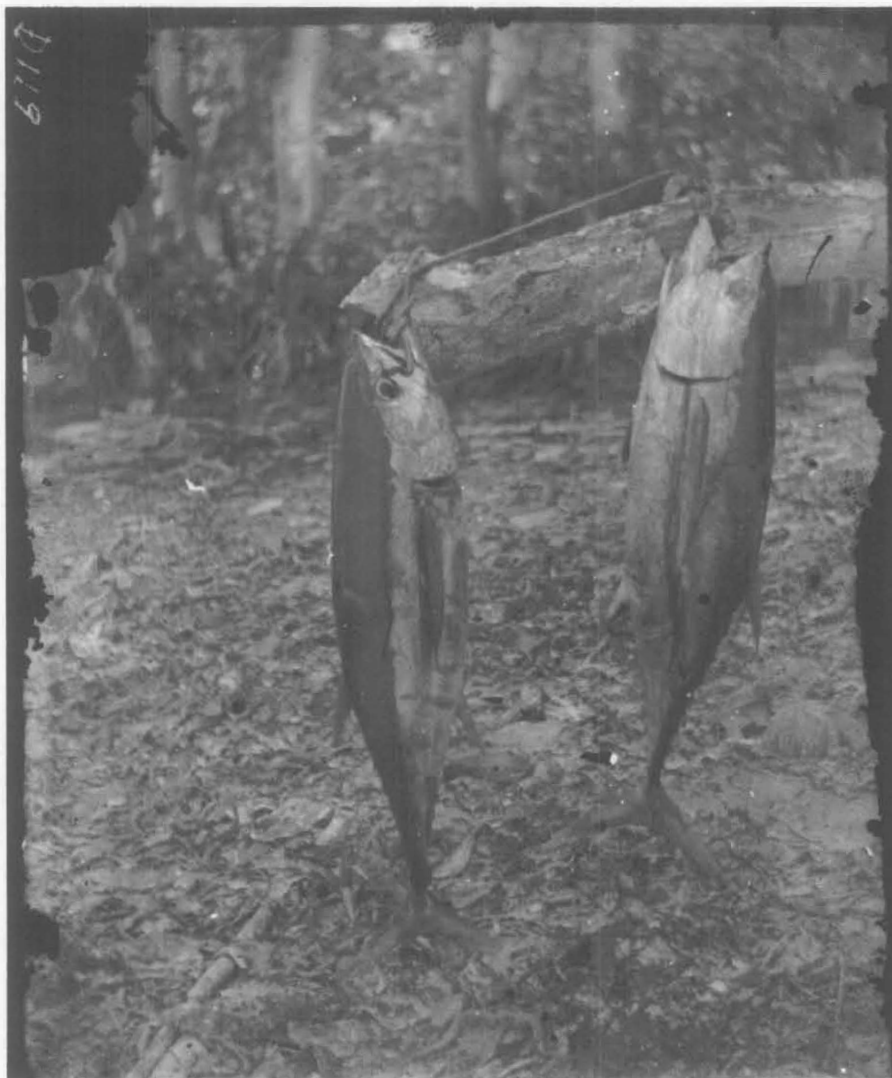


Fig. 11. Catch of *bwebwe*, yellow fin tuna.

The Marshallese are excellent sailors, master canoe builders, and experienced fishermen and their life has always been closely related with the ocean and its many creatures.

In former times the people of the Marshall Islands assumed that the fishes spawned in the vicinity of the mythical island Eb which is considered the residence of Wulleb, the most influential spirit. Nobody knew where this island was located, except that it was in the west. The westerly direction was indicated by the annual migration of birds, which were thought to nest or molt there. And the great schools of fish, too, at a

certain time each year were imagined to move westward, in order to pay their tribute to Wulleb and to spawn around his island.¹

The Marshallese language was full of expressions for every method and category of fishing. The general term for fishing was *eoner*, fishing with a net is *leo*, trolling *tödo*, fishing in the dark at high tide with a net was called *jäem* (Ratak *alleme*). There were also expressions describing the time and the place of fishing: in the moonshine *tubuk*, at night *mul*, in a dark night *juenbun*, in a bright night *kabbji*, while sitting on the beach at night *eojak*, while sitting on the beach during the day *ejojo*, on the open sea *larak*, diving on the outer reef *jääk*, in holes on the outer reef *ril*, on the inner edge of the reef *eolal*.² There were terms for traveling in a canoe with paddles or sails, sailing with un-baited hooks dragging on the high seas, letting the un-baited hook dance on the ocean's surface, sailing in the lagoon with a baited drag hook, dragging the line along the table reef, standing up to the hips in water with a rod, throwing a spear on the outer reef, catching fish with a scoop net on the shore, etc.³

The many fishing methods that had been devised show the intense understanding of sea life. The different fishing methods ranged accordingly from the use of fishing line to the use of net, traps, spears, clubs, rope, and coconut fronds. Some fishing methods were used to catch specific types of fish and some methods required the participation of many people or a group of people and some an individual could practice. Fishing, therefore, was based on the observation of nature and its inhabitants, men and animals, their habitat, their behavior, and their relationships.⁴

But whatever method was employed sharing the catch was, and still is, always an important aspect of the fishing process.

¹ Erdland, 1914:315.

² Krämer und Nevermann, 1938:126.

³ Erdland, 1914:53-54.

⁴ Maddision, 1996:3-4.

5. 1. Fishing Gear.

Traditional Marshallese fishing gear not only consisted of hooks, lines, sinkers, lures, nets, traps and weirs but included magical chants and incantations, too. These last ones were used to lure the fish and considered of equal if not more importance. All these devices were specially designed to fit the particular nature of a fish.⁵

A) Hooks.



Fig. 12. Fishing hook, Museum Stuttgart.

Simple fishhooks without barbs (about 2.5 to 4.5 cm long), made of mother-of-pearl, or in former times of sperm whale teeth, were commonly used to catch skipjack and other fish. Hooks, made of trochus, in a similar shape though with a pointed and smooth end were rare. The quality of the shell was very important for making the hook. People on Namdrik Atoll asked 2-4 German mark for one and made a good business. The hooks were attached to a line and a rod in order to catch *lōjabwil*, skipjack, and other fish. Hooks were curved and notched on the upper end in order to fasten the line there. Today, they have been completely replaced by metal hooks.⁶

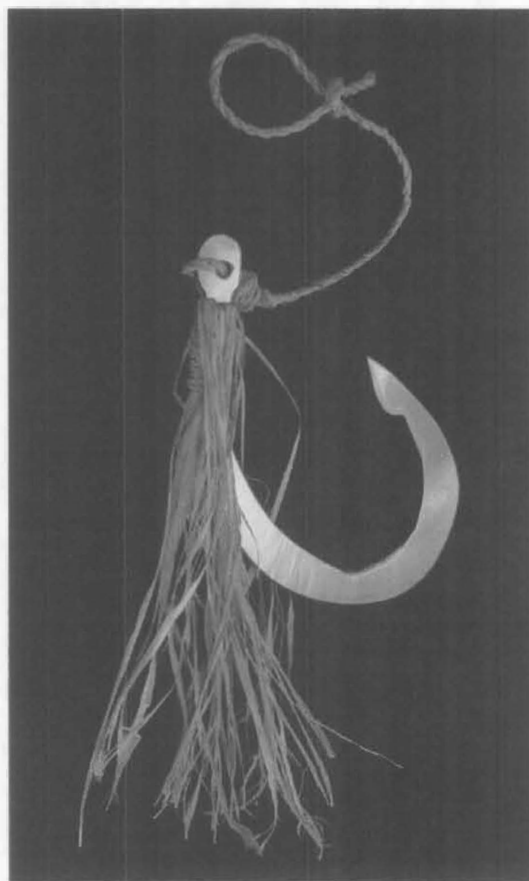


Fig. 13. Fishing hook, Alele Museum.

⁵ Erdland, 1914:46.

⁶ Krämer und Nevermann, 1938:117; Erdland, 1914:47.

Eisenhart, who was shipwrecked on Ailuk Atoll in the 1870s, reported how the surviving seamen made fishhooks from a metal wire of the wreck and how the Marshallese, once they had seen how it was produced, had outdone the German sailors.⁷

Hooks for shark, *pako*, fishing were made from the initial part of the root of the *kōñe*, ironwood tree. Thus, the wood of the tree formed the shaft and the root the actual hook. This is also the reason that these hooks were either angled sharply or rounded, in which case they had a barb. Sometimes such a barb, pointing to the shaft, was attached with a piece of string. The upper end of the shaft was notched in order to fasten a line. Since shark hooks were often lost, they were not made very carefully. Large fishhooks, made of bones from whales or dolphins and similar to the rounded shark hooks, were also used.⁸



Fig. 14. Hooks used for shark fishing.



Fig. 15. Float and hook to catch flying fish.



Fig. 16. Hook to catch flying fish.

Hooks to catch flying fish, *kādj* in *redjip*, were made from a strip of coconut shell, in form of a sickle. One end was usually longer than the other. The hook was connected to an

empty coconut shell by a line and the coconut shell was closed with a stopper to create a float. The fishing line, made from the bark of *armwe*, *silver picturus*, was usually stored in there.⁹

⁷ Eisenhart, 1880:224.

⁸ Krämer und Nevermann, 1938:118-119.

⁹ Krämer und Nevermann, 1938:117.



Fig. 17. *Armwe*, silver pipturus.

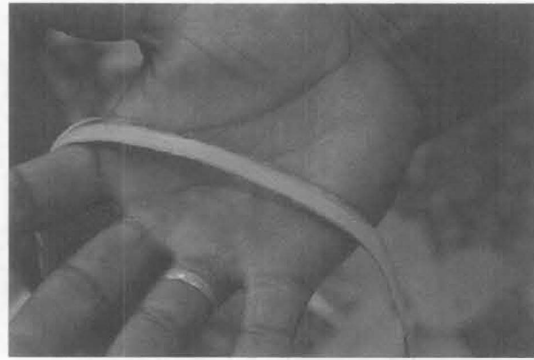


Fig. 18. *Armwe*, silver pipturus, fiber.

Composite hooks consisted of two parts, a shaft and a hook, and were used to catch larger fishes. They were made from the hinge of a seashell. Its thick part formed the upper end of the shaft, which had one or two holes to attach the fishing line. Highly praised were the ones that had a yellowish tint, whereas the majority was silver whitish. Sometimes darker and even greenish pieces were used. On Kwajalein shafts were occasionally made from *pejao*, red spondylus shells.



Fig. 19. Composite hook.

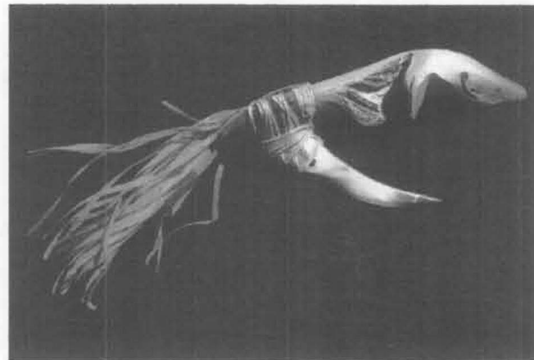


Fig. 20. Composite hook Alele Museum.

A curved hook, made of mother-of-pearl (rarely made of turtle shell), was fastened with a string of *armwe*, silver pipturus, to the lower end of the shaft. Highly valued and quite rare were mother-pearl shafts with a hook made of a sperm whale tooth. On the lower end of the shaft a lure, made from a coiled pandanus leaf, or a bushel of *lo*, hibiscus fibers could be attached. The hibiscus bast usually had its natural color but was sometimes dyed with the bark of *joñ*, oriental mangrove, and occasionally a string with colored glass beads was attached to it. These composite hooks were made especially on Namorik and Majuro, but by the 1880s this skill was already vanishing.¹⁰

The German ethnographer Krämer also reported simple lures, actual mother-of-pearl shafts, which were used for fishing on the ocean without any hook, though with a

¹⁰ Krämer und Nevermann, 1938:117-118.

lure made of pandanus or hibiscus bast. If there was any sticky lure attached to it or any other device to catch fish is not known.¹¹

Already at the end of the 19th Century foreigners remarked that Marshallese fishermen used imported hooks with great skill.

B) Lures and Chuming.

In recent time there are two methods of attracting fish, either by lure or by chum and lure. Chum is very finely pounded bait, which is released into the water at intervals while fishing, to attract the fish to the fishing spot. The chum is meant to excite the fish by its smell, but the particles should be too small to allow them to feed properly. Some fishermen use sand in their chum in order to make it sink faster.¹²

Traditionally Marshall islanders used different kinds of chum. One sort was breadfruit that had been preserved in saltwater. It was thrown into the water at the same time as the hook, baited with a hermit crab. Both lure and bait should sink to the bottom at the same time.¹³ Another chum was called *anan*. It was prepared by crushing and pounding hermit crabs and raw fish left overs on a flat slab using a round stone. Thrown into the water around the boat it attracted fishes and made it easier for the fisherman to make his catch.¹⁴ Another chum traditionally used to catch *mole*, rabbit fish, is made of equal parts of *atat*, beach bur¹⁵, and sand, pound together.¹⁶

Very important lures were *roro*, chants or incantations.

C) Fishing Rods.

Fishing rods (ca. 70-150 cm long) were made from the wood of *kaar*, false elderberry shrub, or *kutaak*, *Allophylus timorensis*. In order to fasten the line and to attach the rod to the edge of the canoe, the ends were thick and carved with sharp barbs. On Maloelap Atoll there were fishing rods of light wood in use. They consisted of several round wooden sticks, the ends of which were slanted and fastened to each other, thus forming a

¹¹ Krämer und Nevermann, 1938:118.

¹² Preston, 1999:32.

¹³ Erdland, 1914:53.

¹⁴ Maddison 1996:11-12.

¹⁵ *Triumfetta procumbens*.

¹⁶ Personal communication with the Marshall Islands Society for the Protection and Promotion of Traditional Medicine.

rod which taper towards the end.¹⁷ Bamboo was another possibility for fishing rods because of its flexibility.¹⁸

D) Fishing Lines and Rope.

Fishing lines were usually made from the strong fibers of the bark of the *armwe*, silver pipturus, and consisted of several strands twisted together. For shark fishing, several lines were twisted together to make thicker, rope-like lines. Occasionally coconut fibers were twisted into lines. For trolling, special band-like lines, made of the inner bark of hibiscus, were used. For storage such fishing lines were kept in *alili*, special fiber bags¹⁹

E) Spears.



Fig. 21. Spear.

Fishing spears were smooth shafts, about 1.5 — 3 m long, made of coconut palm. The pointed ends were slightly barbed. By the 1880s, smooth wooden shafts with a sharpened wire as a point were used.²⁰

F) Nets.

Nets for catching *jojo*, flying fish, were made from hibiscus fiber, coconut fiber, or other material. Several strands were twisted together and knotted to form the net. The net was fastened to a wooden oval frame with a hibiscus cord. The cord passed through holes in the rim of the frame. Sometimes the frame was reinforced by the fastening.

Long nets, usually 5-8 m long and 1.5 m high, were used as dragnets and called *ok in jabuk*, they were used to catch schools of fish. When they were attached to one pole they

¹⁷ Krämer und Nevermann, 1938:119.

¹⁸ Personal communication with Glen Joseph, Marshall Islands Marine Resources.

¹⁹ Krämer und Nevermann, 1938:120, Merlin, 1997:32, 55.

²⁰ Krämer und Nevermann, 1938:120, Erdland, 1914:52.

were called *buenbuen*, when a wooden pole was attached at each end they were called *mejärik*.²¹

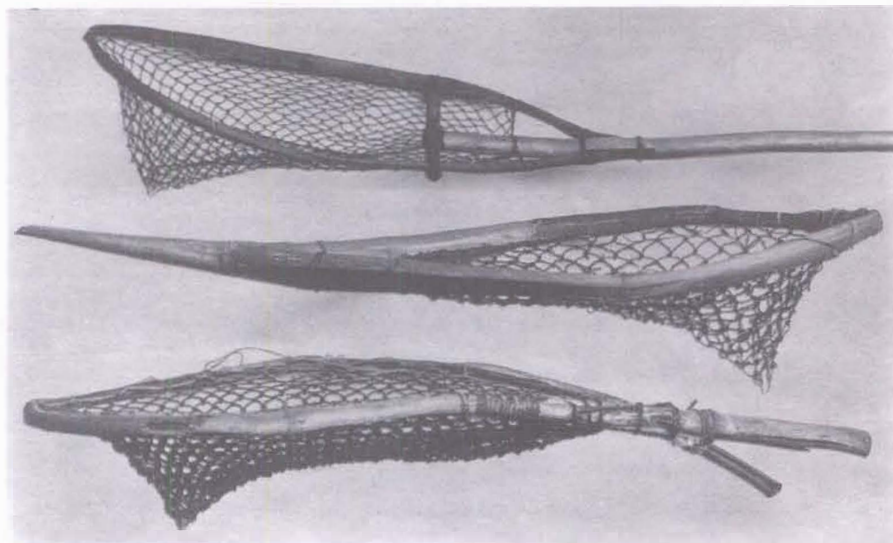


Fig. 22. Hand held nets.



Fig. 23. Man with a hand held net.

²¹ Krämer und Nevermann, 1938:121.

G) U - Fish Traps.

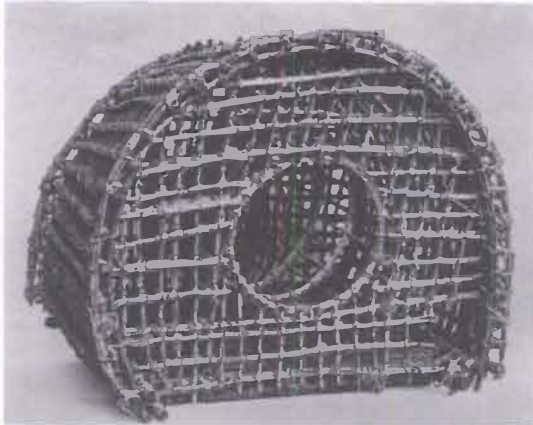


Fig. 24. U, fish trap, ca. 1900.

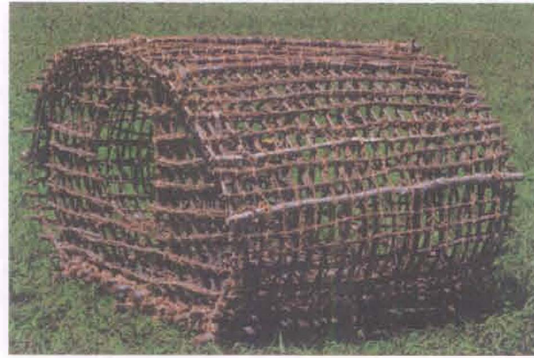


Fig. 25. U, fish trap, Alele Museum, 2002.

Fish traps were made of pandanus aerial roots, bent like hoops, and sticks of *kañal*, the great bird catcher tree, or split bamboo sticks that were twisted over them horizontally with *kkwal*, coconut sennit. This was all tied to a flat bottom piece, with the front and back walls secured by a web of sticks. A round entrance in the front allowed the fish to swim into the basket. To keep the fish from escaping a cone-shape area made of rings and sticks gradually closed in from this entrance. A small side door was used to remove the catch.²²

Boro, cylindrical fish traps, were about 2.5 meters long and made of thin strips of aerial roots of pandanus, which were placed over 30 or more rings and fastened on to them at all their points of contact. There was no funnel at the entrance, which sometimes was strengthened by a wooden ring. The bottom had to be closed off by a small net, or some crosswise arranged sticks, or by concentric cords fastened onto a system of rods in the shape of a star. Funnel shaped fish traps are only a variety of the cylindrical ones. They only differed by the narrowing as well as their size (only



Fig. 26. *Boro*, fish trap.

²² Krämer und Nevermann, 1938:121-122.

about 80 cm). A wrapped coconut rope, as a handle, ran on the outside from the pointed end all the way to the edge of the opening.²³



Fig. 27. *Boro*, fish trap.

H) *Me*, Stone Traps or Weirs.

Fish blockades were used to capture schools of fish. *Me*, coral stone weirs, were made of corals piled together forming a fence-like structure on the ocean reef or on the reef of the lagoon. Two stone walls converged to form a narrow, winding corridor ending in a circular area.²⁴ At high tide the fish entered the weir. When the water was ebbing out they were cut off from the deep water and could easily be fetched with the help of scoops, baskets or buckets.²⁵

The reef and its resources belonged to the chiefs or king who had ultimate control. This being a given the fishponds surely were 'royal fishponds' writes Dieudonne.²⁶ In 1911 Dr. Rife reported.



Fig. 28. *Me*, stone weir.

The traps are 80 ft x 120 ft with walls 4 ft high from the bottom of the sea. They are 4 ft in width at the base. The traps are constructed of coral rock and loosely built.

²³ Krämer und Nevermann, 1938:121.

²⁴ Krämer und Nevermann, 1938:122.

²⁵ Erdland, 1914:51.

²⁶ Dieudonne, 2002:35-36.

... there were 'perhaps 40' traps on the island and no one knows how old they are. He states that the common people built the traps and they belong to the people. The walled fish traps were located at the barrier reef between the sea and lagoon and were repaired as needed.²⁷

Both the above cited authors, Dieudonne, as well as Dr. Rife, are right. The chiefs governed and allotted land rights to the common inhabitants of the atoll, who finally built the stone traps on the plots that had been given to them by the chiefs and also used them. But from their catch some fish had to be given to the chiefs.

When the Alele Museum documented traditional fishing methods, in 1998, the repair of some weirs on Wo Island in Jaluit Atoll, was filmed:

These traps are built on the remains of old traps. It takes about 20 people less than two hours to build them up. These traps ... waves break them apart, but during the summertime they rebuild them. They do this every year.²⁸

These stone traps differed in size and shape according to their locations. In 1950 Hiatt reported from Arno Atoll:



Fig. 29. *Alele*, with a *mwero* palm frond drive.

Stone traps erected on the lagoon reef or on reef passes between islands are frequently met. The position and construction of each trap is designed for certain fish species. Their production varies from place to place, but in general the traps are very successful. The village of Lonar, for example maintains a series of five traps which supply the population of 50-60 persons with all the fish needed.²⁹

²⁷ Dieudonne, 2002:35-36.

²⁸ Frank Langinbo in Dieudonne 2002:39.

²⁹ Hiatt, 1950:2-3.

These stone weirs were guarded by the spirit *Lalibjet*.³⁰

Mwio, the palm frond weir, was an ephemeral or temporary weir, because it could be used at any given time or location. It consisted of *kimmij*, plaited coconut fronds (which were held together with a line made of *lo*, hibiscus bark, that could be drawn together. The men surrounded a school of fish and slowly tightened the circle.³¹ *Lawilele* was the spirit who guarded the old palm frond weirs, which represented him.³² This is the reason that old ones could not be discarded but had to be safeguarded.³³

I) Torches.

For night fishing torches, called *belli* or *kual*, were often used to lure the fish. They were made of the slit shaft of the coconut palm and dried leaves of the coconut blossom, bound together with a cord.³⁴



Fig. 30. *Okwa*, Wotho, Atoll, 2001.

J) *Okwa*, Tripod.

The tripod fishing method was used in shallow water. In order not to disturb the water by standing in it the fisherman used three poles pound together to form a tripod called *okwa*. A footrest, to stand on, was tied on each side toward the bottom. This device was build from heavy wood, in order to provide it with enough weight to stay stable in the water, with its three feet securely embedded into

the sand. The ends of the three poles, which did not come together at the top, usually held a basket for the catch. A hook, line or a spear were used to fishing from the tripod.³⁵ From an *okwa* the fisherman tried to catch *jome* or *jolokmoor*, goatfish.³⁶

³⁰ Erdland, 1914:314.

³¹ Krämer und Nevermann, 1938 122.

³² Erdland, 1914:314.

³³ Erdland, 1906:185.

³⁴ Krämer und Nevermann, 1938 122.

³⁵ Krämer und Nevermann, 1938:120.

³⁶ *Mullordichthys vanicolensis* or *Upeneus vittatus*.



Fig. 31. *Okwa*, tripod, with *banonor*, basket, in the lagoon of Wotho Atoll.

K) *Jemōnna*, Club for Fish.

Wooden clubs, fashioned preferably from heavy wood, as for instance *kōne*, ironwood, had no defined shape. They were used to kill large fish, such as *lōjabwil*, skipjack, and *pako*, sharks.³⁷

L) *Raka in Būbit*, Sinker Stones.

Sinker stones were especially needed for deep bottom fishing. They were simply lashed to the line near the fishhooks. The sinkers either separated at the bottom or were shaken off. Smooth coral stones with a hole, drilled for fastening, were often used to drag the hook to the bottom of the sea.³⁸

³⁷ Krämer und Nevermann, 1938:122.

³⁸ Krämer und Nevermann, 1938:120.

5. 2. Fishing Methods.

In the past many different types of fishing were used. They were specifically designed according to the type of fish, which was supposed to be caught and to the location. The time of year was an important fact, too.

A) Entrapment Methods.

There were different ways to catch fish with traps. Permanent fish traps, generally called weir, could be employed, traps build from twigs and branches as well as ephemeral traps, commonly called nets and scarers.

To catch fish with a trap or weir was a very convenient way. Once the trap had been constructed the fisherman checked it from time to time and collected the fish that were caught in it. The difficulty of this fishing technique was where and how to place what kind of fish trap.

Fish traps were designed according to the fish, which were supposed to be caught. Therefore, the fisherman had to have an expert knowledge of the lagoon's fishing grounds as well as of the behavior of the fish he wanted to catch. The fish traps had to be well constructed and maintained, well positioned, which means in the habitat of the fish that should be caught, and well camouflaged.

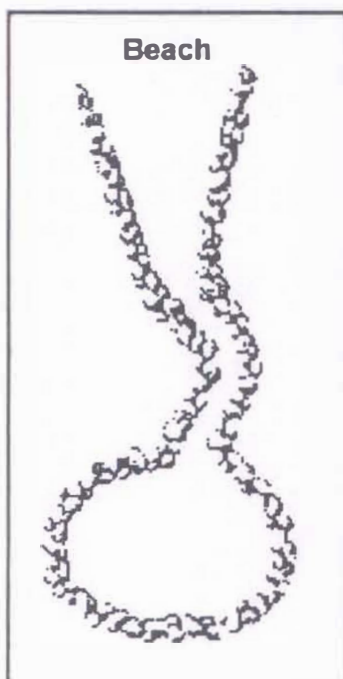


Fig. 32. *Me* stone weir.

As already mentioned before, there were different kinds of fish traps, such as *me*, weirs, *boro*, cylindrical fish traps, and *u*.

In the months of May and November, when mature schools of fish swim in and out of the channels, the *kôttôor* fishing method was often used. In these passages or in their vicinity weirs were built and, at the time when the tide is going out, fishermen chased schools of fish toward the entrance of the *me*, sometimes using coconut fronds or even throwing rocks. Once inside the *me* the fish were scooped up with nets onto boats if not actually carried ashore while still inside the net. Aside from using nets, fishermen sometimes speared the fish. The following fish were captured *molmol*, club mackerel, *merā* or *ekmouj*, parrotfish, *mole*, rabbit fish, and *iol*, fringelip mullet, or *kuban* convict tang.



Fig. 33. Fish weir at Rongrong, Majuro Atoll.

There are and were *me* in Arno Atoll, in the lagoon as well as on the ocean side. Most of them are in the lagoon. ... The *ribubu*³⁹ decide where the weir is going to be built. There are *me* for the *irooj* and *me* for everyone. Generally speaking the *me* belongs to the *wāto*. A *me* brings a lot of fish. When fish are in the *me* it will be announced and everyone can go there and get some. *Me* need a lot of work, they have to be maintained.⁴⁰

U, fish traps, were usually made of twigs of *koñe*, ironwood tree, lashed together with sennit ropes. The customary shapes were rectangular and conic. They were left submerged in water for some days, then were brought up and the fish were collected, usually ranging from *mone*, unicorn fish to *kuro*, grouper.

During low tide the fishermen plant their traps in a depth of 6—8 fathom inside the lagoon; preferably in the vicinity of a passage in the reef. Diving down they cover it with stones so that the fish believe it to be a piece of coral or an old derelict. The next day or after two days the fisherman dives down again and removing the stones he lifts the trap onto the canoe. There he removes his catch through the small side door, returns the poisonous fishes into the sea and keeps the good ones in the canoe. Soon he returns the trap and covers it in the before mentioned fashion. Some traps catch a lot of fish and often these that ignore the hook. But quite often sharks discover the trap and raid it.⁴¹

³⁹ *Ribubu* are people who perform divination.

⁴⁰ Interview with Jimel Jawin on Arno, Arno Atoll on March 23, 2004

⁴¹ Erdland, 1914:49-50.



Fig. 34. Taking fish out of the back of the trap, door of the trap lying on the ground.

Some fishermen also placed stones, like palisades, left and right of the entrance of the trap, in order to lure the fish inside. Inside the fish trap some stones with fish eggs attached to it, could be placed as bait. When *ridjin*, emperor snappers and *lepadjipdjip*, groupers, were caught with a fish trap and some bait, though without any stones at a depth of 10 - 15 m, then this was called *wudjolak*.⁴²



Fig. 35. Fish trap, Utrik Atoll, 1970s.

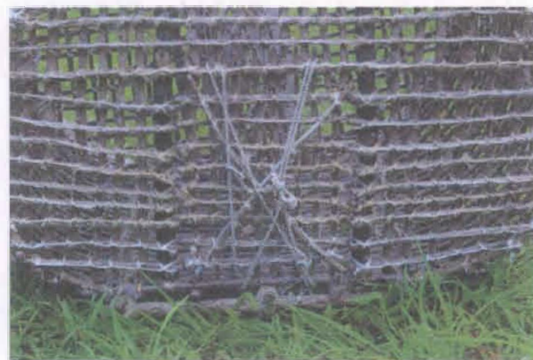


Fig. 36. Fish trap, back door.

⁴² Krämer und Nevermann, 1938:125.

Ephemeral fish traps were *mwio*, dragnets, and scarers of any kind. They were used to direct a fish swarm into a direction in order to surround it.

Many traditional fishing methods in the Marshall Islands make use of the *mwio* or coconut frond chaser, a sort of biodegradable long-net. With basic *mwio* fishing, first the *mwio* or chaser itself had to be made, which was done by tying fronds together to form a long chain, then fishermen brought it to an area where they knew fishes were plentiful, particular trevally or other jacks. Two groups of men—one at the front and the other at the end—laid out the *mwio* across an area, then slowly pulled it back in. When the area encircled by the *mwio* was small enough, the fishermen scooped up the entrapped fishes with a rope and long handled stick-net.⁴³

Fishing with *mwio* required a group of people and in some instances most of the community of a village would participate. As for instance in *alwe in ko-berak*.⁴⁴

When the *Iroji* of Ujae wanted to fish in this manner, he first called for a meeting with his *alap* (or secondary chiefs). There it was decided when it would be good to fish and what preparations were needed before the outing. The *alap*, in turn, informed all the people.



Fig. 37. *Alele*, fishing.

When the actual fishing took place, two large canoes went out with a gigantic *mwio*, 400-500 fronds long that required 20-25 men to handle. The *mwio* was set in deep water, with men dropped off along the way to look after it. Then, from on shore, the huge *mwio* was pulled into the shallows, where the entire community—women and children included—waited. When it was pulled in far enough the *Iroji* was called and he

⁴³ RMI National Biodiversity Team, 2000:76.

⁴⁴ RMI National Biodiversity Team, 2000:77.

spearred the ceremonial first fish, which was specially prepared for him. Then all could fish, but they did not catch parrot fish. Instead they wanted fishes they considered to be especially tasty and good, such as *berak* (yellow lip and orange fin emperors, *Lethrinus kallopterus* and *L. xanthochilus*) *rewa*, (golden trevally, *Gnathanodon speciosus*), *manol* (yellow dotted trevally, *Caragoides fulvoguttatus*), *ellok* (forktail rabbitfish, *Siganus argenteus*), *mejmej* (sea bream, *Gymnocranius* sp.) and *mejakwet* (bigeye emperor, *Monotaxis grandoculus*).

Alele fishing was also a community enterprise, usually conducted by the *irooj*. Initially some men sat in the palm trees on the look out for a shoal of fish swimming just under the surface of the water. Once they were sighted, fishermen in several canoes tried to get close to the fish, and chase them towards the shore. On the shore people had prepared long ropes, fringed with palm fronds. They let the fish come close - up to 100 feet. Then they formed a chain and, forming a half circle, surrounded the fish from two sides, thus, driving them to the shore. With shouting and splashing the surface of the water, the school of fish was prevented to escape the trap. Finally the chief gave the signal and everyone - young and old, chief and commoner, even the missionary - armed with all sorts of weapons and containers - started to chase the fish. The kinds of fish caught with this technique were species that swim in schools such as *merā*, blue parrotfish. A good time for *alele* was when the tide is going out.⁴⁵

Similar to *alele*, but conducted in deeper waters near or on coral heads, was *ittuur*. It was a kind of chase and entrapment in which the school of fish was pursued to the coral head and slaughtered while surrounded by the weir. *Moramor*, rabbit fish⁴⁶ were usually caught with this technique.

Catching *ekmouj*, parrotfish, in the daytime with a palm leaf weir and an *ok in jabuk*, dragnet, on the flat reef between the surf and the outer shore was called *jabuk*. Two men carried the net and two were equipped with a weir made of coconut fronds. One man on the beach informed them when the fish broke through the surf. Stones were thrown to drive the shoal into the weir, the end of which should not lie in the shade. Then the weir was drawn together with a line until the opening was only two meters wide. These were covered by a fishing net, which was 1.5 m high. The fish were driven into this net, which was closed and raised.⁴⁷

⁴⁵ Krämer und Nevermann, 1938:124; Hager, 1886:80-81.

⁴⁶ Siganidae.

⁴⁷ Krämer und Nevermann, 1938:124.

On the other hand catching *jo*, goatfish, with a long net and a *mwio*, palm leaf weir, in the daytime was called *jurōk*. Then the *mwio* was not drawn in, instead, it was held in place until low tide set in and the reef was dry. Afterwards the fish were gathered by hand.⁴⁸ But when fish were caught at night, with the help of a weir made of coconut fronds, it was called *pelpel*.⁴⁹

To fish with a palm leaf weir was called *kōlōjabwil*. *Lōjabwil*, skipjack, was encircled on the open ocean with canoes. The fish were driven into the lagoon and into a palm leaf weir where they were speared. The *irooj* always initiated this by throwing the first spear. Long time ago, women were not permitted to participate, but in the 1880s they helped stringing the fish.⁵⁰ Erdland reported the outcome of such a fishing venture:

... once the chief has given the command in a wild hiatus the natives spear the frantically dashing fishes. As soon as the spearing of the fish starts, the women, who had to stay hidden until now, come in order to take the fishes off the spears. Sometimes the excitement of the fishermen is so great that the feet of some men and women are speared as well; after the spearing the sea is reddened by the blood of the fish.⁵¹

The difficulty of this fishing method was to direct the shoal of fish so that they could be surrounded. But even once they were encircled, some or most of the fish escaped the net.⁵²

Working with fish traps, weirs, and dragnets involved a special vocabulary: *Jo* meant to stand beside a weir and to watch for *mōlmōl*, mackerel,⁵³ while *wōtojome* meant to use a scarer. A scarer was a person or thing, which scared the fish,⁵⁴ as for instance in *lipaanto*, a night method where a chain of coconut leaves was used as the scarer to block the exit route of the fish at low tide in order to trap them.⁵⁵ Using a surrounding net on dark nights was called *aejek*.⁵⁶ But when a weir and a scarer were employed then it was called *kwōmej*.⁵⁷ Being in-between two *na*, shoals, with a scarer was called *kuña*,⁵⁸ while

⁴⁸ Krämer und Nevermann, 1938:124.

⁴⁹ Krämer und Nevermann, 1938:124.

⁵⁰ Krämer und Nevermann, 1938:124; Erdland 1906a:538.

⁵¹ Erdland, 1914:52.

⁵² Erdland, 1914:49.

⁵³ Abo, ed al., 1976:362.

⁵⁴ Abo, ed al., 1976:362.

⁵⁵ Abo, ed al., 1976:362.

⁵⁶ Abo, ed al., 1976:362.

⁵⁷ Abo, ed al., 1976:362.

⁵⁸ Abo, ed al., 1976:361.

surrounding the edges of shoals with nets was *kuma*,⁵⁹ and using an *ok kadkad*, a throwing net, was *kadkad*.⁶⁰ When you catch fish with a dragging net in the open ocean then *jobum* was the right expression.

Different terms were used according to what kind of fish was pursued. *Kōtaltōl* when *mōlmōl*, mackerel, were chased into a throw net held on one side,⁶¹ *aep* when woven brown coconut fronds were used to catch sardines and minnows as they were chased ashore by bigger fish,⁶² and *bqbo* was catching *jojo*, flying fish, at night. This was not only a very effective way of catching flying fish (600 — 1000 in one night) but also a sort of sport and much enjoyed by the participants. Best circumstance for *bqbo* were moonless nights without any rain.

In former times men used to decorate themselves, rubbing sweet smelling oil on their bodies, adorning their hair and beards with white feathers, and putting flower garlands around their necks. All this was done in order to attract many fish with their sweet smell. (By the end of the 19th century this was no longer practiced).

After sunset canoes went to passages in the reef, waiting for darkness in order to sail out into the open ocean. One man stood with a torch at the bow holding the light in such a way that both sides of the boat were lit, as well as the surface of the ocean. A second man stood behind the first one. He had to be *ebbo*, which means he had to have good eyes and well versed in handling the net. Behind him two more men could be stationed with nets. Often a young boy accompanied the group. He kept torches ready in order to replace the burnt ones. The man on the rudder had to know the waters well, guiding the canoe along the reef where flying fish use to dwell.⁶³

The torches attracted the fish and, blinded by the light, they could easily be scooped out of the water with an *ookin bqbo*, net. Some of them even flew towards the canoe and against the sail, where they were collected by hand. This method was used mainly from December to May.⁶⁴ The merriment of this fishing venture was mirrored in several dances of Ailuk Atoll.⁶⁵

⁵⁹ Abo, ed al., 1976:362

⁶⁰ Abo, ed al., 1976:362

⁶¹ Abo, ed al., 1976:361.

⁶² Abo, ed al., 1976:362.

⁶³ Wendeler 1911:489-490.

⁶⁴ Krämer und Nevermann, 1938:123.

⁶⁵ Maddison, 1996:6.

A Ralik Chain expression was *jibadede*, which means catching flying fish when they enter the lagoon at a certain location at Namu Atoll.⁶⁶

One of the most amazing techniques to trap fish was *ekkonook*. It had been developed in Jaluit Atoll, where it was considered sacred, but was also practiced in the southern atolls of the Marshall Islands. This technique was ingenious and needed only a single sennit rope called *iia*, 'rainbow', to catch a school of *ikaidik*, rainbow runners. Based on the knowledge that a rope, once it surrounds the fishes, is considered an unsurpassable obstacle and the fishes will stay inside, the rainbow runners were caught.



Fig. 38. *Ekkonook*, surrounding the school with a rope, Jaluit 1996.

As simple and elegant as this fishing method was, several important terms needed to be understood in order to fully comprehend the interplay that went on during this fishing process:

- *Komen* was the waiting stage when fishermen *kaunaak*, looked for flocks of birds and awaited the arrival of the *tiol*, baitfish. During this stage some of the *aol*, baitfish, could be seen jumping out of the water and the men shouted, "*kaleb kinji*." Then they launched their canoes and followed the school.
- *Wak-ut eo* was the moment when the birds, the baitfish and the *ikaidik* moved in unison toward the coral head and when they neared it "*wak-ut eo jere*" was shouted.

⁶⁶ Abo, ed al., 1976:361.

- *Lallu-awol* was when the school wandered inside and outside the proper depth.
- *Tiol* was the state of readiness (just like the school of tiny bait fish) when the school jumped on top of the coral head trying to escape the school of rainbow runner. This happened just when the sun rose and shed its first light, thus the men chanted: "*Tiole maan ale en, lilije 'm bok na ion wod*". This chant called the rainbow runner to force the *tiol* on top of the coral head and depicted the state of readiness everyone was in.
- *Manlal* was when the baitfish had not risen to the surface of the water, and *mwanar* was when they were at the surface, ready to be picked and pecked by the flock of birds overhead. This was the right moment to lower the 'rainbow' rope (*iia*) into the water and the fishermen chanted,
 "*Konaak wa. Konaak armij. Konaak aolep men*"
 "Everyone is involved, everybody will get their share of the catch,"
- By this time many of the bait fish had been killed by birds, other floated dead on top of the water, while the rest knew they were threatened from all sides. The rainbow runner fed on both live and dead *aol*. Now the fishermen surrounded the school with the rope. Once this was accomplished they began to hit the surface of the water. This action was called *kade* and *jourur*. In their confusion the rainbow runners emptied their stomachs, vomiting the fish they just ate. They became weak and were ready to be scooped.



Fig. 39. *Ekkonook* fishing,, school of fish is surrounded, Jaluit Atoll 1996.



Fig. 40. *Ekkonook* fishing, school of fish is surrounded and men beat the surface of the water.

The fish were then encircled and brought to shallow water on the coral head. The canoes entered the circle and the fish were scooped into the canoes, using nets similar to the ones used in *bqbo* or *bqro*. This fishing method was done during the months of May to August.

When the school was too big, a line was run diametrically, and this was called *iakwodkwode*. If the *ekkonook* was big enough to be divided into four parts, then it was estimated that about 1000 *ikaidik* were in the whole *unaak*, school of fish.

Besides the common rules and regulations that applied for men and women when a fishing expedition was planned, some specific taboos had to be observed when *ekkonook* fishing was under way:

- *Jab kajur tiol*. The only one allowed to stand in any canoe during the fishing process was the fishing master; all other fishermen had to be seated or the school would not appear.
- *Majrobol*. No fisherman was allowed to peep at the school of fish underneath the water, because they would become frightened and jump over the rainbow line, trying to escape across the surface of the water.
- *Eljenenro*. The fishing master had to carefully choose the school of fish he wanted to surround. Once he has made his choice, he had to stick with the school he picked until it had been captured or had escaped.
- *Tilborbor*. The line had to be carefully handled by all fishermen to prevent it from sinking in the shallow fishing area, thus allowing the fish to escape over the line in case of *majrobol*.
- *Jab tuak 'lo bati*. *Bati* were big, shallow wells, like a taro patches. No one was allowed to wade into these *bati*. It was believed that the water



Fig. 41. Throwing an *ok kadkad*, net, Wotho Atoll.

inside the *ekkonaak* would become murky, if the people on land should go into these *bati*.⁶⁷

Ekkonaak was unique because of its effectiveness and simplicity. On one fishing trip often 100 and even 200 fish could be caught.⁶⁸ This technique shows the profound understanding Marshallese fishermen had developed for the sea and its marine life. It has withstood the test of time and still is used today.⁶⁹

Today small fish, such as bait fish, are caught an *ok kadkad*, throwing net. The skilled fishermen throws it over the school of fish.

Ke, dolphins were caught by *dekā in jibke*, clapping stones underwater and driving them to shore where they finally jumped onto the land. This was called *jibke*.¹⁸ In 1891, about 250 dolphins were caught in this manner in the lagoon of Likiep Atoll. As not all of them could be eaten by the atoll's population, oil was produced from the rest of them.⁷⁰



Fig. 42. Porpoises on the beach, Likiep Atoll.

⁶⁷ Maddison, 1996:7-8, 12.

⁶⁸ Hershheim, 1880:46.

⁶⁹ Paul and Morris; 1983:15.

⁷⁰ Steinbach, 1895:464.

Father Johann Wendler participated in such a fishing expedition and reported:

... seven boats sailed in the same direction, in order to search the lagoon for dolphins ... The smaller boats and sailing canoes stay close to the island, the bigger ones search farther out in the lagoon. Often such a hunt takes hours But as soon as a boat sights the school of dolphins they give a sign (usually hoisting a flag). Now all boats move towards the prey. They encircle the fish, so that they have only one way to move – towards the island with the shallow shore or a long reef. In order to give them no chance to escape in-between the boats, the Marshall Islanders developed an ingenious method: armed with two stones they dive as deep as they can. While moving upwards they beat the stones under water to irritate the animals and shout and clap hands on the canoes. In this manner they drive them towards the fatal shore. When one man comes up another jumps in to beat the stones. Because of this noise and commotion the animals get confused and irritated. They are driven to a point, where there is no escape, on one side surrounded by boats and noisy people and on the other side by a sandy shore or a reef they jump themselves on the shore. And even if one dolphin manages to escape this cacophony, he comes back later and can easily be driven to shore.

The Marshallese say he is sad.⁷¹

This fishing method dates back to a Marshallese story: A woman by the name of Libübi, and her son lived on an island. One day the women ordered her son to catch some dolphins so that they could eat. The mother instructed her son, "Go and take two stones. Swim out into the lagoon with them and when you see dolphins start clapping the stones. While doing this you say the following magic words:

Chase them Litübi, land of the north, land of the south, land of the whale and of the sea,
appear whale, appear dolphin, appear whale."

Then they will flee all the way to the shore where they beach themselves and can easily be collected".⁷²

The excitement of such a fishing trip was depicted in the song for a dance of the *budjebudj* sort:⁷³

⁷¹ Wendler 1911:486-487.

⁷² Wendler, 1911:485-486. In the same story also the working taboo for women is mentioned.

⁷³ Krämer, 1905:140-146.

*Ebogoerer
ilik inowor
en inbalägädo
Äo iek gädömur
Edjungil edjungil
Doguin (g)iar
Enni
Iek in eadjedage*

*Mura gadjan wae
Bängegumgum-eo
Äage budjin-in
Edjungil edjungil
Egäelok, edjungil
Doguin giar enni,*

The water swirls
Out in the ocean

The are moving towards the land
The dolphins

They jump, they jump
Blowing in the lagoon.
The fish in schools

It is boiling along the boat
The heart is beating
Because of the amount
They jump, they jump
They spring, they jump
Blowing in the lagoon
*Iek in eadjedag.
Enemidj egeo
I wa-in.*

The fish in schools
Up, kill the fish
In the boats.

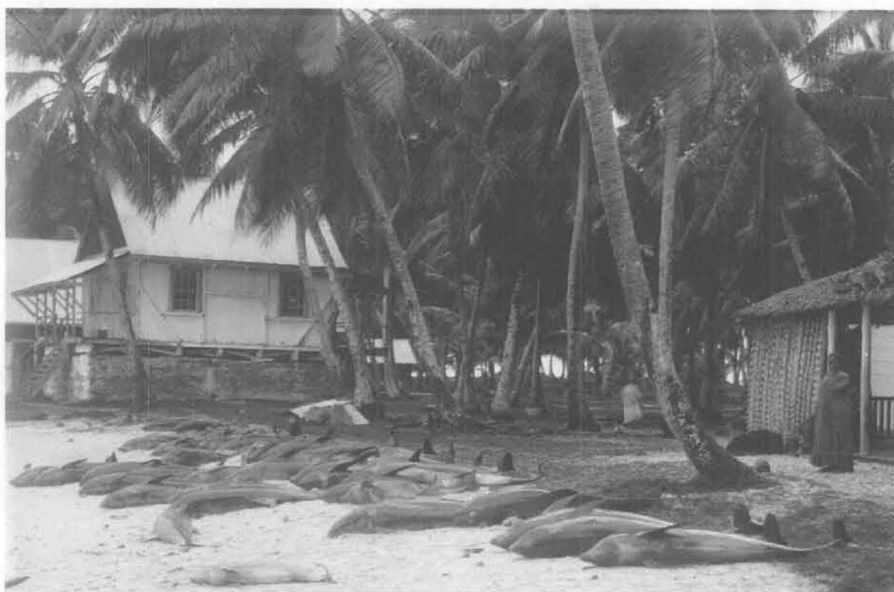


Fig. 43. Beached porpoises, Likiep Atoll.

Dolphins did not represent a staple food in the Marshallese diet, but their black meat was appreciated when available.

B) Fishing with Hook and Line.

Fishing with hook and line was probably one of the most common ways of fishing. There existed many varieties of this fishing technique according to where, when and for what you fished. Numerous words related to it so that a fisherman could precisely express his doings.

Fishing with a pole was called *kōbwābwe*,⁷⁴ and throwing out a line from the beach of the lagoon was called *eojojo*,⁷⁵ while fishing inside the lagoon, using *roun om*, the soft part of hermit crab and *anan* as lure, was *rupe oä*.⁷⁶ Occasionally jerking the line in order to lure a fish to the bait or jig was *kooral*,⁷⁷ but fishing without any bait by simply jerking the line in the hope of hooking a fish by chance was *kāājrabōl*.⁷⁸

Drifting in a canoe with the wind and the current in the lagoon while fishing at the same time was called *peļōk*.⁷⁹ Trolling inside the lagoon was called *kōkkōjekjek*,⁸⁰ and bottom fishing was *eolal*,⁸¹ but *kōjqlim* was when you used octopus for bait on a hook with a weight and dragged it along the sandy bottom.⁸² In case a line and a float were employed, then this sort of fishing was called *kōppeļok*.⁸³ Fishing with a line in the lagoon, using the front half of a coconut shell, was called *mejelat*.⁸⁴

In the evening, when the sun is about to set, *eojjaak* was practiced. Then you fished near the shore of the lagoon from a canoe for *liele*, triggerfish and *kūro*, brown-marbled grouper. Pieces of left over fish or small fish, such as *mamu*, juvenile sardines, were used as bait. Before fishing started *anan*, a special lure, was prepared.⁸⁵ But when the fishing was done in the lagoon from a boat at night, then it was called *ettōbok*.⁸⁶

⁷⁴

⁷⁵ Abo, ed al., 1976:362.

⁷⁶ Maddison, 1996:11.

⁷⁷ Abo, ed al., 1976:362.

⁷⁸ Abo, ed al., 1976:362.

⁷⁹ Abo, ed al., 1976:362.

⁸⁰ Abo, ed al., 1976:362.

⁸¹ Abo, ed al., 1976:361.

⁸² Abo, ed al., 1976:362.

⁸³ Abo, ed al., 1976:362.

⁸⁴ Abo, ed al., 1976:362.

⁸⁵ Maddison, 1996:11-12.

⁸⁶ Abo, ed al., 1976:362.

Ttoor meant pole fishing along the beach or shore,⁸⁷ *kappei* meant pole fishing at night,⁸⁸ and *tto* was pole fishing at night with either lure or bait.⁸⁹ *Kadjo*, on the other hand, was an expression for a special fishing technique, using a pole catching *jõ*, yellow striped goatfish. This method originated on Likiep Atoll. One day twelve brothers went fishing and didn't have any luck. Letao appeared and asked each brother if he could use his fishing pole. They all ignored him except the youngest one. Then Letao took the pole and the youngest brother to one of the islands north of Likiep Island and showed him how *kadjo* was done.⁹⁰



Fig. 44. Boy fishing from the shore of Wotho lagoon.

The best time for *kadjo* was either early in the morning or late in the afternoon, then it could be conducted at certain places close to the lagoon shore. The fisherman had to know how to make the right hook, which differed from the ones you could buy in stores, because it had no barb. He also had to have intimate knowledge about the habitat and behavior of the goatfish.⁹¹

⁸⁷ Abo, ed al., 1976:362.

⁸⁸ Abo, ed al., 1976:362.

⁸⁹ Abo, ed al., 1976:362.

⁹⁰ Maddison, 1996:11.

⁹¹ Maddison, 1996:12;

Kadjo began with *komoor* which meant looking for bait, sand and hermit crabs. They were pounded and mixed until the *anan*, chum was sticky. Chuming the fish was very important. Then the so-called pole and line fishing technique was employed. To master this technique the fishermen needed special training, because the hook was thrown unbaited and the fish was pulled in when he only touched the hook. In this fashion many fish could be caught in a short period of time. This is necessary when a big school of fish is encountered. This fishing method is still used, especially by fishermen from the Ratak Chain.⁹²



Fig. 45. *Okwa*, tripod.

The traditional *okwa* can still be seen in some of the Outer Islands such as Wotho. A tripod of local mangrove stakes is set out in the shallows of the calm sandy bottomed lagoon. From there the fisherman can stand and look down and see goatfishes feeding below. Using a hook and line and he can watch while he positions a baited hook where a goatfish will see it. When it does, he can quickly yank it up. This method, although quite traditional (and picturesque), is said to be an indicator of overfishing, for if there are enough goatfishes they can easily be caught from shore.

Another fishing technique, which had been developed in *kabin meto*, the northern atolls of the Marshall Islands, was pole fishing from an *okwa*, a raised platform or tripod, placed in the lagoon.⁹³ In the RMI Biodiversity Report it is described in this way:⁹⁴

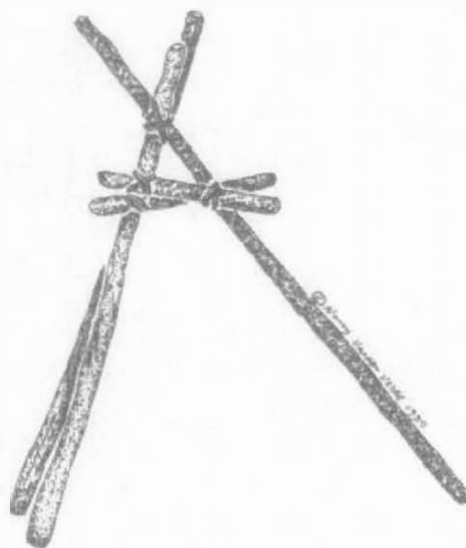


Fig. 46. *Okwa*, tripod.

⁹² personal communication with Glen Joseph, Marshall Islands Marine Resources, July 9, 2004.

⁹³ Abo, ed al., 1976:362.

⁹⁴ RMI National Biodiversity Team, 2000:111.

Standing on an *okwa* you could *kabajojo*, catch small fish with a long rod and small hooks, on which sticky bait of crustaceans, the leaves of *atat*, beach bur, and sand was used. The fishermen stood in water up to their armpits, or on the before mentioned tripod from which they caught *jō*, goatfish.⁹⁵

But most surprising was the way Marshall islanders pursued *jojo*, the flying fish:

Next to an island a flying fish was living. He was big, as big as a whale. One day, there was thunder and lightening in the sky when a canoe from Kwajalein atoll kept away from the wind, and saw the flying fish. The crew is overjoyed when they sight this big fish. They put him on board of their canoe and proceed towards the shore. Here they cook the flying fish and distribute it among all people present, so that everybody has to eat. This is the reason why there are so many flying fish today, even though not a single one is as big as this very first one.⁹⁶

This might also be the reason that several fishing techniques were developed to catch *jojo*, flying fish. While *jojo* was caught at night with torches and nets, during the day a *rōjep*, a hook, formed like a sickle, and a coconut float were employed. Here are two descriptions of using such a hook.

Krämer, a German ethnographer, recorded that it was used as a lure without any bait,⁹⁷ whereas other sources indicate that lobster, coconut crab or sand crab were used as bait.⁹⁸ This hook was fastened to a short line and danced on the surface behind the canoe, because an empty coconut shell was used as a float. The *rōjep* became embedded crosswise in the fish's mouth, and the fisherman pulled his catch out of the sea. As in *bqbo* fishing, the canoes sailed up and down outside the reef, but in the daytime.⁹⁹ Today, this fishing method is still practiced, but instead of a coconut shell hook a metal hook with the peeled leg of a sand crab as bait is used.¹⁰⁰

In former times the fisherman had magic chants and special expressions which ensured his luck.

"Come into the canoe and protect yourself from the sun's rays on that soft mat that a maiden has sent from land out to sea!" If the flying fish do not follow this invitation the fishermen continues: "I keep scolding him, but unjustly as the best one is already swimming to the hook: I have already said that the heavens were coming down

⁹⁵ Krämer und Nevermann, 1938:125.

⁹⁶ Erdland 1914:48-49.

⁹⁷ Krämer und Nevermann, 1938:123-124.

⁹⁸ Wendler, 1911:290; Abo, ed al., 1976:362.

⁹⁹ Krämer und Nevermann, 1938:123-124.

¹⁰⁰ Maddison, 1996:7.

and settling on the sea." Once the fish is caught it was ridiculed: "Master flying fish , now you are dead like a rat, you stink!" But if the fisherman could not catch any flying fish, he would eat something and while chewing his food say: "I found something to eat for myself, while you swim around your food." Throwing out his line again the fisherman would continue: "Hold fast to the maiden's hand (the hook). Now listen, you should shake the stick. I am angry at you. He knows he will not fall into the canoe and struggle there. This canoe is a transport canoe. He swings over, comes floating in the air."¹⁰¹

The Marshallese fishing language provides the following expressions for this fishing technique:¹⁰² *Krijiblon* when the fish bit, *jirok*, when the fish was hooked and jumping, and *bijlok* when the fish was hooked and diving. When the fisherman pulled the line he shouted *e badad bukerol*. When the fish was jumping to and fro, it was called *erameral*, and when the man grabbed the fish, the right term was *turo rin menlik rin*. Taking the fish from the hook was nicknamed *e loktok lio*, which meant 'the woman is here'. When finally the hook was cast again into the water, this was called *i janin lo ajin mejen*, meaning I am still missing the other part. During a gust of wind the fisherman would say, *e bun kodo e, lerebun, jarjarki iomomij*, which was a warning for the wind, not to get too strong, and when a wave when overboard of the canoe the fisherman said in a predictive way, *evat wa eo balla*, 'no water gets into the canoe'. In order to make the fish behind the canoe bite, the fisherman said *tar radam*, and to make the ones from the other side of the canoe bite, *kejaja*.

Already in 1911, when these expressions were recorded, Father Wendler noted, that many people did no longer know these words and those who did, often did not know their meaning.¹⁰³ But even then, in one day hundred of fish were caught with these extraordinary *rōjep*, hooks, and the necessary special magic, but on rainy days all trying was practically useless.

Outside of the atoll, fishing could be undertaken on the reef or in the *meto*, ocean. In the small holes of the reef, during low tide, the fisherman could practice *diil*, fishing for *kur*, squirrel fish, using a two or three-foot-long leader fastened onto a piece of wood of about the same length.¹⁰⁴

¹⁰¹ Erdland 1914:48-49.

¹⁰² Erdland, 1914:48-49.

¹⁰³ Wendler, 1911:490.

¹⁰⁴ Abo, ed al., 1976:361.

Fishing from a canoe with a line on the ocean side was called *liklök*,¹⁰⁵ while fishing from the edge of the reef, when the tide is coming in, and baiting the hook with hard skinned fish or octopus, was *kij paal*. Most of the fishes caught in this way were 30-70 inches long.¹⁰⁶ But when you practiced *kakidiej*, then you targeted *kidiej*, spotted hawkfish, at the edge of the reef.¹⁰⁷ Using a boat on the reef the fisherman could *urök*, which means bottom fishing for reef fish, such as *girro*, grouper, and *ledjipdjip*, highfin grouper. He used tails of crustaceans, etc. as bait. A sinker stone was placed near the hook and pulled it to the bottom, where this sinker came off.¹⁰⁸



Fig. 47.
Cutting shark

Kapakoko means catching sharks and traditionally this was also done from land in the passages of the reef. Sharks were caught with ironwood hooks and bait in form of dead or alive fish.¹⁰⁹ The line was made of *armwe*, silver pipturus fibers and about 30 – 36 yards long.¹¹⁰

Sometimes the Marshallese fishermen have to go far out at sea in order to catch shark. For this venture they need courage, caution, and knowledge, therefore they are highly regarded. There are different methods of catching shark depending if the sharks are small or big. The first ones are caught with the help of a wooden hook and a bait-fish. The big ones are caught without any hook only with the help of a strong rope on which the bait is attached. Usually this bait is exceptionally big and once it has been swallowed by the shark, the fisherman slowly pulls in the rope, so that their catch gradually approaches the canoe without spitting out the bait. Once the shark is close to the canoe a sling is pulled over his head and fastened on the tail. Heavy blows with a club finally kill the shark. Sometimes a fisherman even jumps into the water and fastens the rope around the shark. In order to attract sharks Marshallese use a long line with three red shells each fastened on a cord. In the crystal clear water they are visible from afar. Slowly the line is moved up and down, usually the sharks then comes quite quickly.¹¹¹

This is how shark fishing is recently conducted on Arno Atoll:¹¹²

Pako, shark, is baited with intestines or anything bloody. Where there are many fish there are also the sharks. Today no more wooden hooks are used to fish for sharks,

¹⁰⁵ Abo, ed al., 1976:361):

¹⁰⁶ Maddison 1996:12.

¹⁰⁷ Abo, ed al., 1976:362.

¹⁰⁸ Krämer und Nevermann, 1938:123.

¹⁰⁹ Among the clans of the Marshall is also the clan of the *ripako*, the shark people. They cannot eat *pako* and when they catch a shark then they have to release it. If they would eat *pako*, it would be like they eat their own flesh and blood. The other people can eat shark. Interview Jimel Jawin March 23, 2004.

¹¹⁰ Krämer und Nevermann, 1938:125.

¹¹¹ Parkinson in: Schmeltz and Krause, 1881:270.

¹¹² Interview with Jimel Jawin on Arno, Arno Atoll, March 23, 2004.

but big metal hooks. There is a right way to cut *pako*. This is very important because when the *pako* is cut well then he does not have this distinctive urine smell. It is important to remove the intestines and also the bones have to be removed. The right way to cut the *pako* is: First you cut the dorsal fin, then the flippers, then the tail, and then the head. Then it is time to remove the intestines and to do this you cut from the anus like this

The skin of the shark was used as sandpaper, the teeth were used for weapons and, according to Krämer, the bladder was the membrane for the Marshallese drum. Already during the German colonial time the fins were sold to the Chinese.

Ilarak, meant trolling outside of the lagoon to catch *al*, wahoo, *bwebwe*, tuna, *lōjabwil*, skipjack, and *looj*, albacore. In former times simple hooks, made of mother of pearl, and shiny lures on band-like lines of hibiscus fiber were extended from the sailing canoe. On the line a bright piece of a pandanus leaf was attached in order to imitate the wings of a flying fish.¹¹³ Sometimes a piece of white cloth was used instead.¹¹⁴ The line was fastened to the boat and drawn in jerks by the hand, so that the hook was dancing over the water. The fishes were attracted to this 'fish' and the moment they tried to catch it the hook was driven into their mouth.¹¹⁵ This fishing method was also called *leklek* or, when many fish were caught, *rănāj*. When the hook was baited with *Diodon* vein, then it was termed *labonmor*. When the catch was made from a rowing boat it was called *kargak*. In case a fishing rod was used the method was called *joboä*. When it was windy this fishing method could also be practiced from the edge of the reef.¹¹⁶ On the other hand, fishing from a canoe in the deep ocean for other fish than tuna, using a line was called *kōddāpilpil*,¹¹⁷ while long line, deep ocean, bottom fishing for *bwebwe*, tuna, and *lōjkaan*, blue marlin, was labeled *latippān*.¹¹⁸ Using a diving mask and fishing line outside the reef was considered *jāāk*.¹¹⁹ Nighttime fishing offered a variety of chances, too. As for instance *juunboz*, pole fishing on the edge of the barrier reef at low tide on dark nights, or *kōjjaromrom*, line fishing at night when the line was jerked in order to cause phosphorescence in the water to attract fish to the bait.¹²⁰ Trolling at night was called *kōrkaak*.¹²¹

¹¹³ Krämer und Nevermann, 1938:123.

¹¹⁴ Wendler, 1911:488.

¹¹⁵ Erdland, 1914: 47.

¹¹⁶ Krämer und Nevermann, 1938:123.

¹¹⁷ Abo, ed al., 1976:362.

¹¹⁸ Abo, ed al., 1976:362.

¹¹⁹ Abo, ed al., 1976:362.

¹²⁰ Abo, ed al., 1976:362)

¹²¹ Abo, ed al., 1976:362.

C) Spearing Fish.

Even today spear fishing, *turon*,¹²² is a favorite of Marshallese fishermen and a very common form of fishing. In former times this was not different as can be deduced from the many expressions that existed in order to precisely express how and what kind of fish was speared. The spear was made of wood, whereas today most men use a *bu made* spear gun.



Fig. 48. Spearing on the reef.

Tuwā was spear fishing while diving. In this way *mone*, unicorn fish, *bwilak*, orangespine unicornfish, *kwi*, blue-lined surgeonfish, *kubañ*, convict tang, etc. were caught with a spear called *made bun* and a mash called *mejen turon*.¹²³ When the fisherman was holding on to the reef while spearing, this was termed *kijbaal*.¹²⁴

Bbō, on the other hand, was spear fishing during the daytime on the outer reef or on the shallow lagoon beach. The speared fish were strung through their mouth and gills on

cords.¹²⁵ *Aubō* was the general term for spear fishing on the reef.¹²⁶ But spearing a *merā* parrotfish at night, using a torch, was called *diiljmerā*,¹²⁷ and waiting along the usual path of fish on the reef in order to spear them, which was generally done at the beginning of the ebb and flow of the tide, this was labeled *kōkkāñlā*.¹²⁸



Fig. 49 Man with speared fish.

¹²² Abo, ed al., 1976:362.

¹²³ Maddison 1996:11.

¹²⁴ Abo, ed al., 1976:361.

¹²⁵ Krämer und Nevermann, 1938:124.

¹²⁶ Abo, ed al., 1976:362.

¹²⁷ Krämer und Nevermann, 1938:124.

¹²⁸ Abo, ed al., 1976:362.

D) Clubbing Fish.

On fishing trips it was always handy to have a club nearby, not only to club a shark to death, before hauling it into the canoe. It was a common practice to *deñtak*, strike, *tak*, needlefish, with a long piece of wood when they floated on the surface of the water in moonlit nights.¹²⁹ In another nighttime fishing technique, called *kabwil*, two or more people waded in the shallow water on the reef, looking for fish. One was holding a torch, made of coconut fronds, the others were armed with spears or clubs. The approaching light immobilized the fishes; they were speared and clubbed.¹³⁰ In this way usually small fish were caught.

E) Miscellaneous Methods.



Fig. 50. Seed of the *wōp*, fish poisoning tree, *Barringtonia asiatica*.

When Marshallese walked on the reef at low tide, searching for fish, they called this *kaikikūt*.¹³¹ or *etalpeet*.¹³² One of the simplest ways to catch fish was *rrwe*, inserting the bare hand into holes, nooks, or crannies of the reef.¹³³ But Marshallese fishermen were inventive, they also put poison in the water in order to stun the fish. This procedure was called *obbar*, and *wop*, the seed of the fish poison tree was used.

The seed was crushed and put in large holes on the reef, then the stunned fish could simply be collected by hand,¹³⁴ and they were still good for consumption. In another method hydrogen sulphid was employed.¹³⁵

Marshallese fishermen even fished with a machete, calling this *tilkōmerā*. In the evening, when the water was low, the fisherman went to the reef with a torch. At the approach of the light the fish stood still and immobile. Then they were slain with the bush knife at close range.¹³⁶

¹²⁹ Abo, ed al., 1976:362

¹³⁰ Erdland, 1914:53.

¹³¹ Abo, ed al., 1976:362.

¹³² Abo, ed al., 1976:362.

¹³³ Abo, ed al., 1976:362.

¹³⁴ Krämer und Nevermann, 1938:125.

¹³⁵ Hiatt, 1950:4.

¹³⁶ Erdland, 1914:53.

Erdland reported a very cunning fishing method without mentioning its name:¹³⁷

Catching the fish *kiriej* with the net-like casing of the young coconut palm leaf (*inbil*), which is rolled into a round shape and cast into the water on a fishing rod. The fish bites and is hauled out of the water.

Besides fish other sorts of 'seafood' were caught or collected. *Kakweet* was catching octopus in the holes of the reef. This was women's work, they probed inside the holes with a stick and drew the octopus out.¹³⁸ At night, when the moon was right, men hunted lobster or coconut crab and called this *katooj*.¹³⁹ But if lobster was hunted at night using a flashlight then it was called *tilkawor*.¹⁴⁰

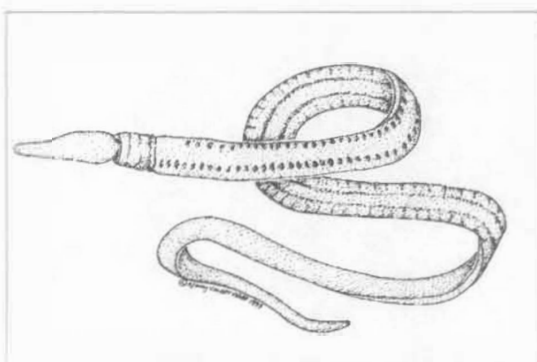


Fig. 51. *Jaibo*, arrow worm.

Kajaibo meant collecting *jaibo*, arrow worms..¹⁴¹

These worm like animals inhabit the soft mud and sand of many lagoons. They are caught by skillfully inserting a *nok*, the midrib of a coconut leaflet into the hole to impale the animal. The captured *jaibo* is then simply eaten raw.

The easiest way to catch turtles was when they come on shore in order to lay their eggs. Once turned on their back they have no way to escape. But turtles could also be speared and hauled into the canoe, when encountered on sea. In former times turtles were found in all the lagoons and when caught had to be presented to the chiefs, in order to be cut according to custom.¹⁴²

Large tortoises are found occasionally in every lagoon, but they are more common near the uninhabited northern islands especially Jemo and Bikar. Every one that is caught must be brought to the chief. It is killed by cutting the neck or simply crushing the head. This is the task of a navigator or a person versed in legends to carve the animal; the various parts are regarded as the mats and the foods of a legendary person.¹⁴³

¹³⁷ Erdland 1906:185.

¹³⁸ Krämer, 1905: 145.

¹³⁹ Abo, ed al., 1976:361.

¹⁴⁰ Abo, ed al., 1976:361.

¹⁴¹ RMI National Diversity Team, 2000:96.

¹⁴² Krämer und Nevermann, 1938:126.

¹⁴³ Erdland, 1914:43-44.

Jimel Jawin explains how turtle hunting was handled on Arno Atoll.¹⁴⁴

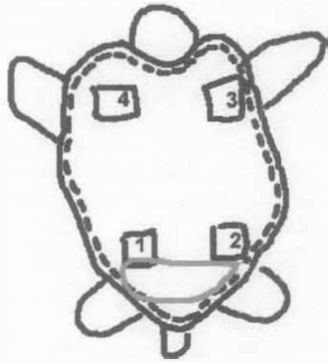


Fig. 52. Right way to cut a turtle.

Every one can kill a turtle. But cutting a turtle is the tricky thing and this you have to know. ... People who can cut the turtle are called *ri muijmuijuin* - the turtle cutters. The cutter does not get a special part of the turtle but his normal share. But the one who sights the turtle will get a special part of the turtle - the hind legs on both sides, there is a special way to take them off. The first step is to open a door and then the other three doors of the turtle's belly-shell. These doors do already exist and just have to be cut open. Then the belly shell is cut all around the edge and removed. Once it is open then the intestines are removed. Then the

flippers are cut off and in this respect the hind flippers are cut in a special way (indicated in red). Then the head is cut and the blood is collected in a container. The guts are cleaned and put back into the belly of the turtle, which is closed with the belly shell and in such a fashion it is put into the *um* [earth oven]. This process is also called *um*. It takes about 3-5 hours to properly cook a turtle in its shell. After the cooking the turtle meat is sliced. Turtle meat, together with *mokwan* [preserved pandanus], is specially good to eat. *Wōn*, turtle, can be eaten all year round, there is no season for it. Actually they should not be eaten but people do nevertheless. There are two different kinds of turtles: the one that you find on the beach they go to the *irooj* and *alap*, while the one that you catch in the open ocean you can keep and eat yourself.



Fig. 53. Catching a turtle on sea.



Fig. 54. Catching a turtle on sea.

Turtle eggs were collected when found and consumed. No information concerning raising turtles was found

¹⁴⁴ Interview with Jimel Jawin on Arno, Arno Atoll, March 23, 2004.

5.3. Women and the Sea.



Fig.55. Women on the reef, carrying *banonor* baskets.

As already stated above, women did not participate in fishing expeditions as they were considered bad omens or unclean beings. Contact with them would make the spirits angry and robbed the elements of their power.¹⁴⁵ When dolphins were caught, women, and even girls, were not allowed to be seen in the vicinity of the lagoon or to do any work. This taboo was called *jabbön*. Should the women ignore this code of conduct, then the fishing expedition would be without success and sharks would bother the men when they were diving.¹⁴⁶ But women did supplement the diet by collecting shore food, such as *jiduul*, top or turban shells, *aurak*, spiderconch, and *likabdoulul*, trochus. They even caught *imim*, various forms of trigger fish, under the shallow water crevices located near the ridge.¹⁴⁷ The before mentioned catching of *kakweet*, octopus, in the holes of the reef was also done by women.¹⁴⁸

In the beginning of the 20th Century, women obviously helped with certain fishing enterprises, as mentioned above. Krämer also reported:

¹⁴⁵ Erdland, 1914: 336.

¹⁴⁶ Wendler, 1911:485-492.

¹⁴⁷ Maddison, 1996:3.

¹⁴⁸ Krämer, 1905:145.

During low tide women and children strike the surface of the water with their hands and in this way chase barbel-fish towards the entrance of the fish trap. Once enough fishes are inside, a man raises the fish trap.¹⁴⁹

5.4. *Nen Wulej* - Fishing Lore, Taboos and Rules.

In the stratified society of the Marshall Island existed chiefs, a nobility and commoners. *Mō*, taboo, were certain areas in the lagoon, reserved for the chiefs, either to fish there themselves or for those who would fish on the behalf of the chiefs. These were usually areas teeming with fish. On the other hand, certain fish were considered *kijen irooj*, 'food of the chief' and could not be eaten by a commoner. When turtles were caught, they had to be presented to the chief as well. They were killed by cutting their throat or crushing their skulls. A navigator or other knowledgeable man had to distribute it, because the different parts of the turtle represented the mats and food of a legendary person. The chiefs got the choicest parts,¹⁵⁰ for instance the black fat of the belly between the legs, called *wiwi* and a part of the intestines called *madjinal*.¹⁵¹

Each fishing method was associated with different social features that affected the person who went fishing. It was regulated how one had to prepare and conduct oneself before and during fishing trips. Established rules dictated the gender of the fishermen, their prohibited activities before going fishing, as well as the procedures used during the whole fishing process. All this was part of the cultural aspect of fishing.¹⁵²

When the master of the house intended to go fishing, or to undertake any other important enterprise, then he sacrificed among his family. Hager, who reported this from the Marshall Islands, does not mention how such a sacrifice was conducted.¹⁵³

As initially mentioned the right chants were just as important as the right hooks and lures to secure a positive outcome of a fishing venture. When the hook was thrown into the water the fisherman sang the following words:

Errabu, errabu, errabu, kijen bago, errabu, errabu, errabu. kijen jilo.
Hallo, hallo, hallo, food for the shark, hallo, hallo, hallo, food for the bonito.

¹⁴⁹ Krämer und Nevermann, 1938:125.

¹⁵⁰ Erdland, 1914: 43.

¹⁵¹ Krämer, 105:145.

¹⁵² Maddison 1996:3.

¹⁵³ Hager, 1886:62.

While chanting he jerked the line up and down. If no fish was caught for a long time then the fisherman shouted to the man on the rudder: *kuon mane janilik eo, janilik eo le ne rarlikij I öro binmate jon na I mur*, wishing his clothing mat would smell as sweet smelling oil, so that the fish would follow the smell and bite. In case somebody wanted to catch a big fish, he shouted, "*Kabbue in buk ilijik lekalal judakda*, stay away from the wind at the tip of the islands (reef) there resides the most noble one." The lucky one who had a fish on his hook, was shouting, "*E gojik*," which means he bit. And once the fish was hooked and while it flapped around the fisherman sang the following lines:

E judak emij eri,
E judak emij eri
Alen ruo,
E judak muijmuij
 The one which stood,
 he got caught,
 he got caught.

He is distributed,
E judak bukuk
Muijmuij itwaj ikien bāin
E gojik iek.
 the sinews of my arm
 are stretching,
 but the fish got caught.

Another fishing chant was recorded on Arno Atoll:¹⁵⁴

Roro ek is calling the fish to come, it is also called *kajin ek*, fish talk. Each man has his own and it is supposed to bring *woro* - luck to the fishing expedition.

Woda e, e; itom kwāñod io
Joda e, e to toom pad i-ene.

Juon ie joni, juōda e, juōda

Joni e to juōda uwe em kwāñod io.

In this manner every fisherman recited his own chants, to magically help his fishing skills. Fishing skills were prestigious. For instance on Mejit Atoll a successful fisherman had privileges when coming home from fishing. There are two small entrances into the lagoon of the atoll. In former times the lucky fisherman with a big catch would enter the lagoon by the entrance called *to e gon*, the rich entrance, and people immediately knew about the outcome of his fishing trip. On the other hand, the fisherman who did not catch a lot of fish had to use *to e jagon*, the poor entrance.¹⁵⁵

¹⁵⁴ Interview with Jimel Jawin on Arno Island, Arno Atoll, March 23, 2004.

¹⁵⁵ Wendler, 1911:488-489.

In some fishing methods, people of certain *jowi*, clans, or islands were not allowed to be present at the channel at the beginning of the fishing expedition. Other clans, or island people needed to be in the passage to attract certain schools of fish.¹⁵⁶

When it comes to shark as food opinions are biased. Many argue that traditionally Marshallese did not eat shark. On the other hand, Eisenhart who stayed eight month on Ailuk, reported in 1880:¹⁵⁷

Quite a few young sharks were lured and also eaten though only a big appetite could force you to do so.

In former times people in the Marshall Islands went nevertheless fishing for sharks, because they studded their weapons with shark teeth, they used the skin of the shark to sand wooden surfaces, as well as the bladder to string their drums. But the members of *ripako*, the shark clan, could not participate in these ventures. They could not catch and kill sharks, the totem of their clan, on the contrary, they could call them.

Ikot bwadik eo de jilepani eo

Roloklok re Riepketak oooo.

Jilii-piruk, kani ko.

Jilii-piruk, kani ko pako.

Ledrik-in ep ro ruo raar letok irooj.

According to legend two girls used this magical song to rescue a group of Marshallese, who, together with their chief, had drifted to the mythical island Eb. The song induced and enabled the sharks to jump out of the sea and eat the people from Eb who had chased the Marshallese all across the ocean as they were returning to their home, Arno Atoll, after having been held captive on Eb.¹⁵⁸

In case the fishermen were lucky and caught many fish, they were not only distributed, but often released in *bädd*, fishponds or inland lakes, where they would be ready for further use.¹⁵⁹

Once on the ocean it was forbidden to talk vividly, as well as to name food with the common name *kij* or *mane*¹⁶⁰ ...and you could not point out a shoal of fish with your finger as this might make them move away.¹⁶¹

¹⁵⁶ Maddison 1996:3.

¹⁵⁷ Eisenhart, 1880:224.

¹⁵⁸ Merlin, 1997:33.

¹⁵⁹ Krämer: 1905:145.

Whales were used to divine the future: A whale driven onto the eastern shore of the atoll heralded the forthcoming death of a high chief, if one was beached in the west, a chief's child soon would be born.¹⁶²

Taboos were believed to affect the outcome of fishing trips. But already in 1914 Erdland wrote:

"The fishermen today no longer pay attention to the old customs. Formerly they were not permitted to pass by graves or to take cooked food to sea (except when catching flying fish). The wives of the fishermen were not allowed to prepare material for weaving or to weave while their husbands were fishing.¹⁶³ The numerous demigods preferably inhabit small hills. When going fishing men circumnavigated these locations because the spirits would hex the fish away.¹⁶⁴

One important restriction, Erdland did not mention, was sexual abstinence before a fishing trip. But many restrictions concerned only women. While Marshallese society is matrilineal, fishing had always been under the jurisdiction of men and a male venture from which women were banned. They were not allowed to go on fishing expeditions with men, and when they were ashore during such expeditions, they and the rest of the remaining community members could not go near the shore or be seen along the shore. If they did, fishermen would encounter 'bad luck'.¹⁶⁵

When men went catching dolphins women were not allowed near the shore nor were they allowed weaving. According to Marshallese folklore the woman Litübi, who had taught her son how to catch dolphins, was weaving mats while her son was catching dolphins. This made the animals thrashing around, jumping and diving. The son could not catch any and angrily came home. He got even angrier when he heard his mother had caused his bad luck, by staying on the shore and working. Therefore he distributed his belongings and left.¹⁶⁶

Eating fish also had its own set of rules: No one could eat two kinds of fish at the same meal, since the spirits (winds) of the fish would conflict in the stomach. Whoever ate fish and meat in one meal would become a coward and easily feel cold in the rain.

¹⁶⁰ Erdland, 1906:183.

¹⁶¹ Erdland, 1906:190.

¹⁶² Erdland, 1914:339.

¹⁶³ Erdland, 1914:53 and 339

¹⁶⁴ Erdland, 1906:182.

¹⁶⁵ Maddison 1996:3.

¹⁶⁶ Wendler, 1911:485.

When men went fishing they should not eat any *emo unir aämat*, baked food. People who had eaten a raw fruit should not eat turtle meat as it would make their teeth brittle.¹⁶⁷

Fish caught with nets and in weirs on the outer shore were prepared on the spot. Since the sacrificial place was there, no woman could eat such fish without suffering fierce pains in the head and chest; unless the catch amounted to more than one hundred fish. The rest of the fish from the weir were not cooked a few at a time, but in large numbers. Their heads had to point east and no one was allowed to pass eastward of the cooking fire.¹⁶⁸

Fish speared by a first born may not be eaten by a woman, otherwise the firstborn would lose his skill in spearing. Even his own mother was subject to this law.¹⁶⁹

During her menarche the daughter of a chief was not allowed to eat any fish caught by weir or palm frond, as well as no bonito, albacore, and some other fish.¹⁷⁰

When only a few fish were caught, the women would be the ones to eat them. If a fish was shared the head would be served to the *irooj* or whoever held the place of respect. Sharing of food was and still is today the most important rule. Sharing the catch with family and neighbors was depicted in Marshallese sayings:

enra bwen lale rara
a full plate will be shared with everyone

kandikdik kin yokwe
"even when the amount of food is small, it will be shared in bits with love."¹⁷¹

5.5. Fish from the Marshallese Point of View.

The above mentioned different fishing methods show that people from the Marshall Islands have long been skillful and ardent fishermen. They not only developed many diversified fishing methods, but also caught a lot of different fish. Some fishes, as for instance shark, Marshallese people did not eat in former times. Some fish were

¹⁶⁷ Erdland, 1914:338-339.

¹⁶⁸ Dieudonne, 2002:36.

¹⁶⁹ Erdland, 1914:336.

¹⁷⁰ Erdland, 1909:112.

¹⁷¹ Maddison, 1996:3.

considered *kijen irooj*, fish for the chief. They had to be delivered to the chiefs and common people could not eat them.¹⁷²

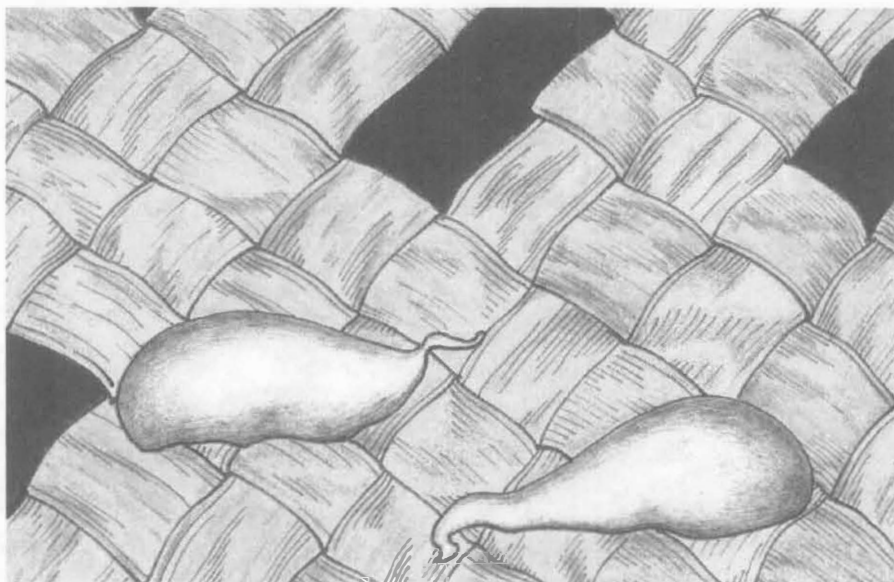


Fig. 56. *Ji-o im jao*, parasites in the stomachs of mahi mahi and wahoo.

Keke, mahi mahi and *al*, wahoo, were given little value by the Marshallese. Especially women would not eat this fish because of *ji-o im jao*, the two parasites that live in the stomach of every wahoo. According to Marshallese folklore, these two creatures were once brother and sister, as well as lovers. They were eaten by a wahoo and to this day you will find this ill-fated couple in the stomach of every wahoo.¹⁷³

Marshallese stories explained quite a few of the characteristics of fish: one big fish, a predator had a red mouth because he had devoured the son of the chief, and the octopus got its spots because a rat, frightened to drawn, jumped on the back of the octopus where it defecated.¹⁷⁴

Another story explains why the head of the flying fish is so flat:

Edao, a demigod, follows all the fish, in order to find out which one is the fastest. When he notices the fastest one, it is a fish that can fly over the islands. He tries to trick the fish and picks up a stone, throwing it at the fish, and hitting it. The stone

¹⁷² Steinbach, 1895:473.

¹⁷³ deBruem and Altiery, 1983:6.

¹⁷⁴ Wendler 1911:491.

penetrates the head, the fish tumbles down and scurries along the ground. Now Edao can grab it easily and is happy.¹⁷⁵

One more fish, the small bluish baitfish *auwel*, had dealings with Edao and was cursed by him. From then on he had lost his chance to escape bad luck. Once he arrives at the water's surface the birds get him and in the depth the predators are waiting, but if he comes close to shore the fishermen are waiting for him.¹⁷⁶

Quite a lot of fish were considered poisonous out of various reasons. In 1893 Erwin Steinbach a German doctor stationed in Jaluit Atoll reported:

The inhabitants of different islands have different opinions on what kind of fishes are poisonous. There are fish, which are caught in the lagoon of Ebon and are eaten because they are not considered poisonous, whereas the same sort of fish is considered very poisonous by the inhabitants of Jaluit. The same fish which can be eaten without causing any harm when caught in the eastern part of the Jaluit lagoon, is considered poisonous when caught in the western part of the lagoon. ... The Marshallese have their own method in order to render poisonous fish eatable. These fishes, especially the smaller ones, are placed into the lakes and ponds, which are often in the interior of an island. ... After several weeks in such a habitat they have lost their poison.¹⁷⁷

Today *kadôk in ek*, fish poisoning, is called ciguatera and known to occur in all the atolls of the Marshall Islands. Marshallese people developed their own means to discover if a fish is poisonous or not. They place a quarter dollar coin in the fish when cooking it and in case the quarter changes color, turning into a copper colored one, they know the fish is poisonous.¹⁷⁸ When no flies settle on the cooked fish it is an indication that it is not safe for consumption. A fish can be offered to a cat and if refused it is considered unsafe. Another way of finding out about the state of a fish was giving it away as a present.

As fish poisoning was not uncommon Marshallese pharmacopoeia knew quite a few remedies for it. In a recent workshop by the Marshall Islands Society for the Protection and Promotion of Traditional Medicine five of these remedies were recorded.¹⁷⁹

¹⁷⁵ Wendler 1911: 491.

¹⁷⁶ Erdland, 1906:183-184.

¹⁷⁷ Steinbach, 1893/94:164.

¹⁷⁸ Ruben Junior Aini

¹⁷⁹ Personal communication with Irene Taafaki, University of South Pacific, Majuo.

Marshallese fishermen considered big marlin and tuna a nuisance and tried to avoid them if possible. This can easily be understood if one imagines what it would be like to battle a 15 feet marlin from a 12 feet canoe. But they knew how to deal with such a fish, when they had to ...¹⁸⁰

As mentioned above *ripako*, people of the shark clan, could not fish shark. Due to the intensive urine smell of shark meat this fish was traditionally not eaten by the Marshallese. Nevertheless, when foreign traders reached the Marshall Islands, shark became a target fish of many fishermen, as it was one way to earn some cash. Already at the time of the German administration shark fins were exported for 2 mark per pound to China, where they were and still are considered a delicacy.¹⁸¹ At the time of writing this report no information on recent developments concerning shark fin trade could be obtained.

Marshall Islands fishermen had been powerless against one species in the sea, namely, the whale.¹⁸² But whales were eaten when found beached on the shores of the islands. Around the mid 1800s the whale got scarce due to over fishing by international whalers.¹⁸³

Of all the creature of the sea there was only one that Marshallese fishermen feared and this was *bāremomo*, the sea snake. It was said to look gruesome with its rough many colored skin, which was predominantly yellowish. It was about 10-15 meters long and 50-60 cm thick. The Marshalles fled when sighting it.¹⁸⁴

¹⁸⁰ DeBrum and Altiery, 1983:6.

¹⁸¹ Meyer, 1910:332, Steinbach, 1895:465.

¹⁸² Erdland, 1914:53.

¹⁸³ Meyer, 1910:332.

¹⁸⁴ Erdland, 1906:184. It has not been sighted in the last 150 years and its existence could not be verified during the research for this report.

VI. FISHING TODAY.

Traditional fishing methods are still employed today even though canoes were replaced by motor boats and the indigenous fishing gear is no longer produced but modern lines, lures, poles and spears are employed. Fishing methods, such as *latibben* or *ilaarak*, are gradually replaced by trolling, especially in the urbanized atolls. Taboos concerning fishing and cooking, as well as eating fish, are no longer observed. The fishing methods have not really changed; and to a certain extent imported fishing gear merged with traditional knowledge. The real change lays in the degree of compliance to the behavioral rules of fishing, and the level of wisdom gained from the reliance on imported materials.¹

Today fishing is no longer a necessity for all Marshallese families for their subsistence economy. But still plays an important role because fish is one of the staple foods. Besides fishing is a task men like to do and like to talk about. No wonder the Marshall Island Fishing Tournament always makes headlines in the news.

The people of the Marshall Islands have a long history of seafaring skills and a vast variety of fishing techniques developed in the rich fishing grounds that surround our many islands and atolls. These skills have sustained our people on these small islands for more than a thousand years and they still do today. Fishing is a vital part of Marshallese way of life and it is appropriate that our bountiful waters be opened to sport fishing, as well as commercial fishing for the benefit and pleasure of our local people ²

With the Marshall Island Fishing Tournament, that started in Majuro in 1983 and has become renowned regionally, a new area of fishing started; sport-fishing. It was a significant event because it has spurred the local interest in the art of fishing and as a result has increased the availability of fish in the local markets. The RMI Government has declared July 4th as Fisherman's Day, a holiday to honor and promote fishing.³

Since the Marshall Islands Billfish Club was founded in 1983 it has gained public acceptance. Currently the club has 60 member, most of them active fishermen. Each of the 10-15 tournaments regularly makes the headlines of the Journal of the Marshall Islands and is much talked about. But the talk of the town are the big tournament in July as well as the 'All Micronesia Tournament' in September.⁴

¹ Maddison, 1996:2.

² President Amata Kabua, in Marshall Islands First Annual Fishing Tournament, 1982:1.

³ Maddison, 1996:2.

⁴ Personal communication with John Murphy, president of the Billfish Club, September 20, 2004.

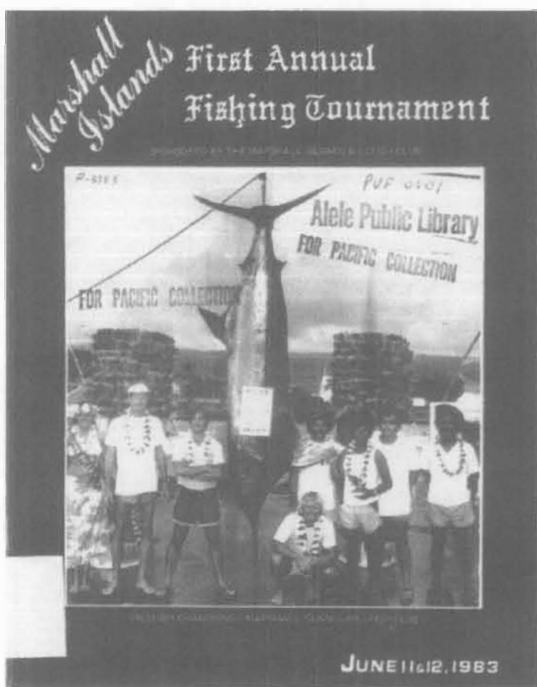


Fig. 57. First Billfish tournament.



Fig. 58. Marshall's Billfish Club fishing tournament, July 2003.

In September 2004 the Journal of the Marshall Islands reported a turtle for sale in Majuro.⁵ According to the 'new taboos', the law, this is no longer permissible and the Marshall Island Journal wrote:



Fig. 59. Turtle for sale in 2004.

A local woman's group ... choose ... to display a green turtle shell for sale. Many people in the RMI [Republic of the Marshall Islands] may be unaware that the sale of turtle products is illegal according to the Marshall Islands Marine Resources Authority law: "No turtles or turtle products may be sold, purchased, displayed for sale, or offered for sale or otherwise marketed," the law says. Although we are not aware that the law has ever been enforced, it provides that "maximum penalties for violation of this law are a fine of no more than \$10,000 or imprisonment up to six months or both.

The Marshallese Biodiversity report points out that:⁶

The underwater environment virtually teems with a wide variety of life. Inshore, there are over 800 fishes. Deeper down, there are likely to be at least 120 species. It is very hard to know exactly what is in the vast area since it is difficult to study, and the records are scarce and incomplete. Hence, there may be hundreds more still out there, but undocumented.

The accessible coral reef of the Marshall Islands is comprised of over 250 species of coral, with probably another 100 members of the same Cnidaria phylum. The mollusks are the biggest phylum in the country with over 1,650 species from all 5 major classes.

Over time Marshallese fishermen employed different means and devices in order to tap into this huge reservoir of marine supplies. By carefully observing the ocean and its creatures they learned how to pursue and catch certain fish as well as to avoid other. This knowledge enabled the survival of the Marshallese people.

After having talked with informants and having written this report the anthropologist noticed, that *kajin ek*, fish talk and the underlying knowledge about fish, their characteristics as well as their habitat, and the interrelationship of fish and other living beings in the lagoon and the ocean are no longer common knowledge among Marshallese men. Thus, there is not only the loss of old and traditional knowledge, *roro*, chants, and stories to lament, but the fishing skills that were built on this basic wisdom.

Today, no longer all households have access to a boat or a canoe, thus fish no longer is the daily food for many families on the atolls and islands of the Ratak and Ralik Chain, and no longer all fishing techniques, which had been developed in the Marshall Islands are employed by Marshallese fishermen. And recently Marshallese no longer consider fresh fish a daily necessity, it has long been replaced by corned beef, spam, pork, chicken or canned tuna.

⁵ The Marshall Island Journal Volume 35, Number 38, Friday, September 17, 2004:11.

⁶ RMI National Biodiversity Team, 2000:96.

Today Marshallese fishermen are not the only ones fishing in the waters of the Ratak and Ralik Chains. The Marshall Islands have a reputation among sport fishermen and according to information from the Billfish Club in 2003 approximately 90-100 fishermen came to fish in the waters of the Republic of the Marshall Islands, followed, so it is hoped, by many more in the future.

Since its discovery the waters of the Ratak and Ralik Chains have always been popular with foreign fishermen. Initially whalers flocked to the Marshall Islands, not only hunting whales, but bringing its numbers to near extinction. Today, modern fishing fleets from the Marshall Islands as well as from the United States, Japan, Taiwan, Republic of China, Korea, New Zealand, Vanuatu, Federated States of Micronesia cruise the waters of the Republic of the Marshall Islands. In 2002 all in all 35.000 tons of mixed species (yellow fin, big eye, and skipjack) were fished with mixed gear (pursein, pole and line, and long line).⁷ This not only represents the fishing techniques of the 21. Century but also an entirely different attitude of fishing, far away from *kajin ek*, fish talk, and the traditional Marshallese perception of the ocean and its creatures.

Today, the resources are still there and fishing is still important in the Marshall Islands but, nevertheless, there are changes. Not only have modern fishing supplies been used since a long time and sport fishing is very much talked about (at least in the urban centers Majuro and Ebeye) but in the lagoons of many atolls the sea is used in an industrial manner - fishing for export, sharks are pursued for their fins, giant clams are raised for the international market, and pearls are farmed. In due course of all these new ventures, which are no longer supporting a subsistence economy, values and perceptions change, too, they mirror the viewpoint of a cash economy.

⁷ Personal communication with Glen Joseph, Marshall Islands Marine Resources, July 12, 2004.

VII. GLOSSARY.

Marshallese	Old Sources	English
A		
<i>aejek</i>	Abo, ed al., 1976:362.	using a surrounding net on dark nights
<i>aelon kein</i>		these atolls
<i>äkejab</i>	Erdland, 1914:346-347	spirit
<i>al</i>		wahoo,
<i>alap</i>		the lineage head
<i>älele</i>		communal fishing technique
	<i>alili</i> Krämer + N., 1938:120,	special fiber bags
	<i>alleme</i> (Ratak) Krämer + N., 1938:126.	night fishing at high tide with a net
	<i>alwe in ko-berak</i> Biodiversity Report, 2000:76.	communal fishing
	<i>anan</i> Maddison 1996:11-12.	chum
<i>añōn ean</i>		pandanus season (January to March)
<i>añōn rak</i>		breadfruit season (June to October)
	<i>aol</i> Maddison, 1996:7-8, 12.	baitfish
	<i>apep</i> Abo, ed al., 1976:362.	woven brown coconut fronds are used to
		catch sardines
<i>armwe</i>		silver pipturus
<i>atat</i>		beach bur, <i>Triumfetta procumbens</i> .
	<i>aubō</i> Abo, ed al., 1976:362.	spear fishing on the reef
<i>aurak</i>		spiderconch
	<i>auwel</i> Erdland, 1906:183-184.	baitfish
B		
<i>bädd</i>	Krämer, 1905:145.	fishponds or inland lakes
<i>banonor</i>		basket
	<i>bāremomo</i> Erdland, 1906:184.	giant sea snake.
	<i>bati</i> Maddison, 1996:7-8, 12.	big, shallow wells
	<i>bbō</i> Krämer + N., 1938:124.	spear fishing during daytime on outer reef
	<i>belli</i> Krämer + N., 1938:122.	torch
<i>berak</i>	<i>bijlok</i> Erdland, 1914:48-49.	yellow lip and orange fin emperors,
		<i>jojo</i> fishing expression, the fish was
		hooked and diving.
	<i>bqbo</i> Abo, ed al., 1976:362.	to was catch flying fish. at night
	<i>bqro</i> Krämer + N., 1938:121.	cylindrical fish traps
	<i>buenbuen</i> Krämer + N., 1938:121.	long nets attached to a pole
<i>bwebwe</i>		yellow fin tuna
<i>bwij</i>		lineage
	<i>bwilak</i> Maddison 1996:11.	orangespine unicornfish
<i>bu made</i>		spear gun
	<i>budjebudj</i> Krämer, 1905:140-146.	a dance

D	<i>dekā in jibke</i>	Krämer + N., 1938:122.	clapping stones underwater to catch dolphins
	<i>deñtak</i>	Abo, ed al., 1976:362.	strike
	<i>diil</i>	Abo, ed al., 1976:361.	fishing for squirrel fish on the reef
	<i>diiljmerā</i>	Krämer + N., 1938:124.	spearing parrotfish at night, using a torch
E	<i>ebbo</i>	Wendeler 1911:489-490.	with good eyes
<i>ek</i>			fish
<i>ekkan</i>			tributes to the chief
<i>ekkonook</i>			communal fishing technique from Jaluit Atoll, employing only a rope
<i>ekmouj</i>			parrotfish
<i>ellok</i>	<i>eljenenro</i>	Maddison, 1996:7-8, 12.	choosing careful the school of fish
	<i>emo unir aāmat</i>	Erdland, 1914:338-339.	forktail rabbitfish, <i>Siganus argenteus</i>
	<i>ejak</i>	Krämer + N., 1938:126.	baked food
	<i>ejojo</i>	Krämer + N., 1938:126.	night, fishing sitting on the beach
	<i>ejojo</i>	Abo, ed al., 1976:362.	fishing sitting on the beach in the daytime
	<i>eolal</i>	Krämer + N., 1938:126.	throwing a line from the lagoon beach
	<i>eolal</i>	Abo, ed al., 1976:362.	fishing on the inner edge of the reef
	<i>eoner</i>	Krämer + N., 1938:126.	bottom fishing
	<i>eoijaak</i>	Abo, ed al., 1976:362.	fishing
	<i>erameral</i>	Erdland, 1914:48-49.	fishing when the sun is setting
	<i>etalpeet</i>	Abo, ed al., 1976:362.	<i>jojo</i> fishing expression, fish jumping to and fro
<i>etto im etto</i>	<i>ettōbok</i>	Abo, ed al., 1976:362.	walking on the reef searching for fish
			a long, long time ago
			fishing in the lagoon from a boat at night
G	<i>girro</i>	Krämer + N., 1938:123.	grouper
I	<i>iakwodkwode</i>	Maddison, 1996:7-8, 12.	<i>ekkonook</i> expression, to run a rope through the school of fish to divide them
<i>iia</i>			rainbow, rope
<i>ikaidik</i>			rainbow runner
<i>ilaarak</i>	<i>ilarak</i>	Krämer + N., 1938:123.	trolling outside of the lagoon
	<i>imim</i>	Maddison, 1996:3.	fishing technique
	<i>inbil</i>	Erdland, 1914:53.	fish for triggerfish in shallow water
	<i>inbil</i>	Erdland, 1914:53.	net-like casing of the young coconut palm leaf
<i>iol</i>			young coconut palm leaf
<i>irooj</i>			fringelip mullet
<i>iroojiddik</i>			chief
<i>iroojlaplap</i>			lesser chief
	<i>ittuur</i>	Krämer + N., 1938:124.	paramount chief
			communal fishing with a weir

J	<i>jabbön</i>	Wendler, 1911:485-492.	fishing taboo
	<i>jab kajur tiol</i>	Maddison, 1996:7-8, 12.	<i>ekkonook</i> expression, only the master is allowed to stand in a canoe during the fishing process.
	<i>jabuk</i>	Krämer + N., 1938:124.	catching parrotfish at daytime with a palm leaf weir and an dragnet
	<i>jääk</i>	Krämer + N., 1938:126.	diving on the outer reef
	<i>jäem</i>	Krämer + N., 1938:126.	night fishing at high tide with a net
	<i>jemōnna</i>	Krämer + N., 1938:122.	club for fishing
	<i>jibadede (Ralik)</i>	Abo, ed al., 1976:361.	catching flying fish when they enter the lagoon at a certain location at Namu Atoll
	<i>jiduul</i>		top or turban shell
	<i>ji-o im jao</i>		two parasites that live in the stomach of every wahoo
	<i>jirok</i>	Erdland, 1914:48-49.	<i>jojo</i> fishing expression, fish was hooked and jumping,
	<i>jo</i>		goatfish
	<i>jō</i>	Maddison, 1996:11.	goatfish
	<i>joboä</i>	Krämer + N., 1938:123.	fishing from a rowing boat with rod
	<i>jobum</i>	Abo, ed al., 1976:362.	catch fish with a dragging net in the open ocean
	<i>jojo</i>		flying fish
	<i>jolet jen Anij</i>		gift from God
	<i>joñ</i>		oriental mangrove,
	<i>joorāne</i>		land sign
	<i>joormeto</i>		sea sign
K	<i>jourur</i>	Maddison, 1996:7-8, 12.	hitting the surface of the water
	<i>jowī</i>		clan
	<i>juenbun</i>	Krämer + N., 1938:126.	fishing in a dark night
	<i>jurōk</i>	Krämer + N., 1938:124.	catching goatfish at daytime with a palm leaf weir
	<i>juunbon</i>	Abo, ed al., 1976:362.	pole fishing on the barrier reef at low tide on dark nights
	<i>kāājrabōl</i>	Abo, ed al., 1976:362.	false elderberry shrub, <i>Premna serratifolia</i>
	<i>kabajojo</i>	Krämer + N., 1938:125.	fishing without bait by jerking the line
	<i>kabbji</i>	Krämer + N., 1938:126.	catch small fish with a long rod and small hooks
	<i>kabwil</i>	Erdland, 1914:53.	fishing in a bright night
	<i>kade</i>	Maddison, 1996:7-8, 12.	northern atolls of the Marshall Islands
	<i>kādj</i>	Krämer + N., 1938:117.	nighttime fishing technique
	<i>kādj in redjip</i>	Krämer + N., 1938:117.	hitting the surface of the water
<i>kabin meto</i>			fishing hook
			hook to catch flying fish

<i>kadkad</i> <i>kadōk in ek</i>	<i>kadjo</i>	Maddison, 1996:11.	pole fishing to catch yellow striped goatfish to throw
	<i>kaikikūl</i> <i>kajaibo</i>	Abo, ed al., 1976:362. Biodiversity Report, 2000:96.	fish poisoning, ciguatera walking on the reef searching for fish arrow worms
<i>kajin</i> <i>kajin ek</i> <i>kajin majel</i> <i>kajoor</i>	<i>kakidiej</i>	Abo, ed al., 1976:362.	language fish talk Marshallese language commoner
	<i>kakweet</i>	Krämer, 1905: 145.	fishing for spotted hawkfish, at the edge of the reef
	<i>kañal</i>	Krämer + N., 1938:121-122.	catching octopus in the holes of the reef great bird catcher tree
	<i>kapakoko</i>	Krämer + N., 1938:123.	catching sharks
	<i>kappei</i>	Abo, ed al., 1976:362.	pole fishing at night
	<i>kargak</i>	Krämer + N., 1938:123.	fishing from a rowing boat
	<i>katooj</i>	Abo, ed al., 1976:361.	hunting lobster or coconut crab at night dolphin
	<i>kidiej</i>	Abo, ed al., 1976:362.	mahi mahi spotted hawkfish
	<i>kijbaal</i>	Abo, ed al., 1976:361.	holding on to the reef while spearing
	<i>kij paal</i>	Maddison 1996:12.	fishing from the edge of the reef with incoming tide, hook baited with hard skinned fish or octopus
<i>ke</i> <i>keke</i>	<i>kij</i>	Erdland, 1906:183	food food of the chief plaited coconut fronds
	<i>kiriej</i>	Erdland, 1914:53.	catching fish with the net-like casing of the young coconut palm leaf
	<i>kkwal</i>	Krämer + N., 1938:121-122.	coconut sennit
	<i>kōbwābwe</i>	Abo, ed al., 1976:362.	fishing with a pole
	<i>kōddāpilpil</i>	Abo, ed al., 1976:362.	fishing from a canoe in the ocean for other fish than tuna
	<i>kōjjaromrom</i>	Abo, ed al., 1976:362.	line fishing at night when the line was jerking it to cause phosphorescence
	<i>kōjolim</i>	Abo, ed al., 1976:362.	using octopus for bait and dragged it along the sandy bottom.
	<i>kōkkāālāl</i>	Abo, ed al., 1976:362.	waiting on the reef in order to spear fish
	<i>kōkkqjekjek</i>	Abo, ed al., 1976:362.	trolling inside the lagoon
	<i>kōlōjabwil</i>	Abo, ed al., 1976:362.	to fish with a palm leaf weir
<i>kōñe</i>	<i>komen</i>	Maddison, 1996:7-8, 12.	<i>ekkonook</i> expression, waiting stage
	<i>komoor</i>	Maddison, 1996:11.	<i>kadjo</i> expression, looking for bait
	<i>kooral</i>	Abo, ed al., 1976:362.	ironwood tree, Pemphis acidula occasionally jerking the line to lure fish to the bait

<i>kuban</i>	<i>kōppeḷok</i>	Abo, ed al., 1976:362.	fishing with a line and float
	<i>Kōrkaak</i>	Abo, ed al., 1976:362.	trolling at night
	<i>kōtaltōl</i>	Abo, ed al., 1976:362.	mackerel, are chased into a throw net
	<i>kōttōor</i>	Krämer + N., 1938:125.	driving fish towards the stone weir
	<i>krijiblon</i>	Erdland, 1914:48-49.	<i>jojo</i> fishing expression, when fish bite
	<i>kual</i>	Krämer + Ne., 1938 122.	torch
			convict tang
<i>kuro</i> <i>kutaak</i>	<i>kuma</i>	Abo, ed al., 1976:362.	surrounding a shoal of fish with nets
	<i>kuña</i>	Abo, ed al., 1976:362.	to be in-between two shoals with a scarer
	<i>kur</i>	Abo, ed al., 1976:361.	squirrel fish
<i>L</i>			brown-marbled grouper
			<i>Allophyllus timorensis</i>
<i>latibben</i>	<i>kwi</i>	Maddison 1996:11.	blue-lined surgeonfish
	<i>kwōmej</i>	Abo, ed al., 1976:362.	Fishing with a weir and a scarer
<i>likabdoulul</i>	<i>labonmor</i>	Krämer + N., 1938:123.	hook baited with <i>Diodon</i>
	<i>larak</i>	Krämer + N., 1938:126.	fishing in the open sea
			fishing technique
	<i>latippān</i>	Abo, ed al., 1976:362.	long line, deep ocean, bottom fishing
	<i>ledjipdjip</i>	Krämer + N., 1938:123.	highfin grouper
	<i>leklek</i>	Krämer + N., 1938:123.	fishing without a bait
	<i>leo</i>	Krämer + N., 1938:126.	fishing with a net
	<i>lepadjipdjip</i>	Krämer + N., 1938:125.	grouper
	<i>liele</i>	Abo, ed al., 1976:361	triggerfish
			trochus
<i>lino</i>	<i>likḷok</i>	Abo, ed al., 1976:361	line fishing from a canoe on the ocean side
			tidal wave
<i>lo</i>	<i>lipaanto</i>	Abo, ed al., 1976:362	night fishing with coconut leaves weir
			<i>Hibiscus tiliaceus</i>
<i>looj</i>	<i>lōjabwil</i>	Erdland, 1914:52.	skipjack
	<i>lōjkaan</i>	Abo, ed al., 1976:362.	blue marlin
<i>M</i>			albacore
<i>majel</i>	<i>made bun</i>	Maddison 1996:11.	spear
	<i>madjinal</i>	Krämer, 105:145.	part of the intestines of a turtle
			Marshallese
	<i>majrobol</i>	Maddison, 1996:7-8,	<i>ekkonook</i> expression, not to look at the
			school of fish under water
	<i>mamu</i>	Abo, ed al., 1976:362.	juvenile sardines
	<i>mane</i>	Erdland, 1906:183.	food
<i>manol</i>	<i>mejelat</i>	Abo, ed al., 1976:362.	line fishing in the lagoon, using the front
			half of a coconut shell,
	<i>mejen turon</i>	Maddison 1996:11.	mesh
	<i>manlal</i>	Maddison, 1996:7-8, 12.	<i>ekkonook</i> expression when baitfish had not
			risen to the surface of the water
			yellow dotted trevally, <i>Caragoides</i>

<i>me</i>			fulvoguttatus
<i>mejakwet</i>			stone weir
			bigeye emperor, <i>Monotaxis grandoculus</i>
	<i>mejārik</i>	Krämer + N., 1938:121.	net with a wooden pole attached at each end
<i>mejmej</i>			sea bream, <i>Gymnoctranus</i> sp.)
<i>meto</i>	<i>merā</i>	Hager, 1886:80-81.	blue parrotfish
<i>mō</i>			sea, stick chart
<i>mole</i>			taboo
<i>molmol</i>			rabbit fish
	<i>mōlmōl</i>	Abo, ed al., 1976:362.	club mackerel
<i>mone</i>			club mackerel
<i>moramor</i>			unicorn fish
	<i>mwānar</i>	Maddison, 1996:7-8, 12.	rabbit fish, <i>Siganidae</i> fam.
			<i>ekkonook</i> expression, when fish are at the surface, ready to be picked and pecked by the flock of birds overhead.
<i>mwio</i>			palm frond weir, dragnet, scarer
	<i>mul</i>	Krämer + N., 1938:126.	fishing at night
N			
<i>nen wulej</i>	<i>na</i>	Abo, ed al., 1976:362.	shoal of fish
<i>ni</i>			fishing lore, taboos and rules
	<i>nok</i>	Biodiversity Report, 2000:96.	coconut
O			midrib of a coconut
<i>obbar</i>			
	<i>ok in jabuk</i>	Krämer + Ne., 1938:121.	poisoning fish
<i>ok kadkad</i>			long nets, used as dragnets
<i>okwa</i>			throwing net
	<i>ookin bqbo</i>	Krämer + N., 1938:123.	tripod
P			net
<i>pako</i>			
<i>pejao</i>	<i>pelpel.</i>	Krämer + N., 1938:124.	shark
			red spondylus shell
	<i>peļōk</i>	Abo, ed al., 1976:362.	fish caught at night, with a weir made of coconut fronds
			drifting in a canoe while fishing
R			
<i>raka in bitbit</i>	<i>rānāj</i>	Krämer + N., 1938:123.	sinker stone
	<i>redjip</i>	Krämer + N., 1938:117.	fishing and catching many fish
			fishing technique to catch flying fish
<i>rewa</i>			golden trevally, <i>Gnathanodon speciosus</i>
<i>ribubu</i>			person who makes a divination
<i>rijerbal</i>			worker
<i>ridjin</i>			emperor snappers
	<i>ril</i>	Krämer + N., 1938:126.	fishing in the holes on the outer reef

<i>ri muijmuijwuiin</i> <i>ripako</i> <i>roro</i> <i>roro ek</i>	<i>rōjep</i>	Krämer + N., 1938:123-124.	people who can cut the turtle people of the shark clan hook, formed like a sickle, to catch flying fish
	<i>roun om</i>	Abo, ed al., 1976:362.	chant, incantation
	<i>rrwe</i>	Abo, ed al., 1976:362.	chant calling the fish to come
	<i>rupe oä</i>	Abo, ed al., 1976:362.	soft part of hermit crab inserting the bare hand into holes of the reef, looking for fish fishing inside the lagoon with the soft part of hermit crab
T	<i>tak</i>	Abo, ed al., 1976:362.	needlefish
	<i>tilborbor</i>	Maddison, 1996:7-8, 12.	<i>ekkonook</i> expression, handling the rope carefully
	<i>tilkawor</i>	Abo, ed al., 1976:361.	hunting lobster at night using a flashlight
	<i>tilkōmerā</i>	Erdland, 1914:53.	fishing with a machete
	<i>tiol</i>	Maddison, 1996:7-8, 12.	baitfish, also <i>ekkonook</i> expression for state of readiness
	<i>tōdo</i>	Krämer + N., 1938:126.	trolling
	<i>to e gon</i>	Wendler, 1911:488-489.	'rich' entrance into lagoon of Mejit Atoll
	<i>to e jagon</i>	Wendler, 1911:488-489.	'poor' entrance into lagoon of Mejit Atoll
	<i>tto</i>	Abo, ed al., 1976:362.	night fishing with a pole
	<i>ttoor</i>	Abo, ed al., 1976:362.	pole fishing along the beach or shore
	<i>tubuk</i>	Krämer + N., 1938:126.	fishing in the moonshine
	<i>turon</i>	Abo, ed al., 1976:362.	spear fishing
	<i>tuwā</i>	Maddison 1996:11.	spear fishing while diving
U <i>u</i>	<i>unaak</i>	Maddison, 1996:7-8, 12.	fish trap
	<i>urōk</i>	Krämer + N., 1938:123.	school of fish bottom fishing
W <i>wāto</i> <i>wōn</i> <i>wop</i> <i>woro</i>	<i>wiwi</i>	Krämer, 1938:145.	land parcel black fat of the belly between the legs of a turtle turtle
	<i>wōtojome</i>	Abo, ed al., 1976:362.	fish poison tree
	<i>wudjolak</i>	Krämer + N., 1938:125.	luck to use a scarer
			catching fish with a trap without stones

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