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FISH POISONING IN THE HAWAIIAN ISLANDS

with

Notes on the Custom in Southern Polynesia.

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Fish-Poisoning in the Hawaiian Islands

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Hola, Fish-Poisoning in Hawaii.

One of the many methods of fishing practiced by Hawaiians was the *hola*, a term which signifies: (1) the material as prepared for fishing, (2) the particular system of fishing, (3) to take fish by poison. As the food of the Hawaiians consisted largely of fish, they, like other Polynesians, were expert fishermen. Not only were their fishing implements well developed, but their working knowledge of the habits of the local fishes was remarkably good. It may seem surprising, therefore, that a people so largely dependent on fish food should resort to a method which with the mature fish destroyed also the immature. But this quick and certain means of taking fish being carried on during only part of the year, the damage to the fishing industry was probably not so great as might be expected.

The natives state that the poison most frequently used for hola-fishing was obtained from two plants, *auhuhu*[1] and *akia* (see p. 226), and that they were prepared in the same way—comminuted by being pounded with stones. The resulting mass was enclosed in various kinds of packages and then quickly applied. It is the odor emanating from the freshly crushed vegetation that affects the fish, according to the native idea, and so no time was wasted. It would seem that the strength as well as the odor of the *hola* was soon dissipated and that the poison quickly lost its effect.

[1] The toxic principle of *auhuhu*, as identified recently in a preliminary study of the plant by Mr. C. E. Warriner, chemist of the Hawaiian Sugar Planters' Association, is Glucoside. It is hoped that an exhaustive investigation of the vegetable poisons used by the Hawaiians may be undertaken in the near future.

The fishing was done in fresh-water streams, on reefs, along rocky shores, and in tidal pools. In stream fishing a dam was built across a brook—few Hawaiian streams are more than mountain brooks—and the *hola* was placed in the stream above. It is said that very large catches of gobies and shrimps were taken with dip nets in the newly formed pool. According to some accounts the mud was stirred up when the poison was placed in the stream, as the mere disturbance of the mud had the effect of dislodging the fish. The same method was used in driving fish down stream to be caught by sieve-weirs.

In sea fishing along the shores and the reefs, the *hola* was enclosed in loose packages made of grass, of *aa niu* (sheath fibre of coco palm-leaf stems), or possibly of some other porous material. In later times an ordinary sack was employed. The package was placed for a few minutes at the mouth of a hole where fish were known to be, or was passed slowly along the base of a large boulder. The fishing was always confined to a small area, for on coming in contact with the narcotic, the fish that could escape naturally darted into the open and were caught in a seine placed for the purpose. Some fishermen dispensed with the seine and took the chance of catching the fleeing fish with dip nets. Most of the fish, according to the report of the natives, were overcome so quickly by the poison that they could not escape and were taken with the hand or dip net. Occasionally the package of *hola* was attached to a stick for more convenient application.

While at Honaunau, on the Island of Hawaii, the writer had an opportunity of witnessing the process of preparing *hola* and later the use of it in a tidal pool. It came about in this way. In many places along the shore the surface of the ancient lava flow showed unmistakable marks of pounding. Markings were found in an irregular belt following the line of the sea and extending inland about a hundred feet. The natives explained that these markings were where *auhuhu*, one of the plants used for fish-poisoning, had been pounded, and that the use of the plant had continued until goats exterminated it in that vicinity. The natives then described the process in detail. As further inquiry brought out the information that *auhuhu* could be obtained in a cattle pasture at Kauleoli,

two miles to the south, arrangements were made for a temporary revival of the destructive ancient practice.

Four men were despatched to gather *auhuhu*, and after an absence of three hours they returned with four bundles containing in all 128 plants. The plants were in flower and fruit and were complete, having been pulled up by the roots; they ranged in height from 1½ to 2½ feet. (See Plates XVII *A* and XIX *B*.)

At low tide, the men went to the shore, taking with them the *auhuhu*, two dip nets, a small seine, two sticks, and a sack. The sticks were not for driving out the fish from crannies—the poison did that; they were a means of defense against eels, which were greatly feared. The men had prepared themselves for sea fishing, but knowing the difficulty of photographing objects in the waves, the native foreman directed them to a pool called Kekuai'o, in which, it was said, many large fish had been taken. This pool was irregularly oval in shape, with a surface measurement of 22 by 26 feet. The depth varied from 1 to 3 feet. At low tide the waves lapped in at one corner, but at high tide they swept strongly through the pool. There were three small rocks standing up in the pool and many crevices in its sides. When first examined, it seemed without fish, except for *ohua*[2], which are to be seen in all the tidal pools. The only interference by the writer in what followed (except for the necessary pauses for photographing) was to remind the men that grass had not been brought for the packages. The men set to work on a level portion of the lava flow, 20 feet distant from the pool. The bundles were thrown down, untied, and pounded as they lay (Plate XVII *A*). The pounders were rough stones, averaging 15 pounds in weight, selected without especial care. Each man proceeded with his work according to his own idea, one of the two older men beginning at the blossom end of the bundle and the other at the roots. After ten minutes, all the leaves, seed-pods, and twigs were broken off and the bark of the stems was loosened. The bark was then rapidly and cleanly peeled from the stems and roots, and the wood was discarded

[2] Young of the *manini (Hepatus sandvicensis)*, called *ohua* until about 2½ inches in length. The Hawaiians daily catch great quantities with dip nets for food.

(Plate XVII *B*). The mass was again pounded, until it was reduced to the fineness of chaff. It was then gathered up very carefully, even to the scraping of the matted fibre from the bedrock, the whole process of pounding taking twenty minutes. The resulting *hola* was a dark rich green in color, and was slightly moist to the touch.

The *hola* and grass were carried quickly to the edge of the pool. The grass was taken up in small bunches, which were bent and twisted roughly into "spoons", and a double handful of *hola* was placed in the bowl of each (Plate XVIII *A*). The employment of the grass was to avoid the bites of eels. As rapidly as possible the filled spoons were thrust under the rocks and into the holes in the sides of the pool, and were then withdrawn, leaving the *hola* behind (Plate XVIII *B*). The spoons were quickly refilled and re-emptied, but they held together for only about three dips, after which the men used their bare hands—apparently there was insufficient time to make new spoons. Throughout, the actions of the men were very quick, as rapid as the needs of photographing would permit; they seemed anxious to get the *hola* into the water in the freshest condition possible. The stain from the *hola* had the strong green tint of stagnant salt water. It spread gradually through the pool, beginning to show within half a minute. Before the *hola* was all placed in the water (the operation taking about five minutes) some fish were seen making their way to the entrance of the pool, which was thereupon blocked by dropping the seine on it in a heap.

Within ten minutes after the first immersion of the poison, the fish (except the eels) were swimming about aimlessly, or floating either on or below the surface of the water. Many were taken with the hand, but most of them with the dip nets. In fifteen minutes all the fish in sight had been gathered except the eels, which were resistant to the full effects of the poison.[3] Some of the latter began to wriggle out of the pool. It was surprising to note that the small *ohua* seemed to be affected much more slowly than the other and larger fishes. Another point of interest was the quantity

[3] A similar condition was noted on Ponape. Christian, F. W., The Caroline Islands, p. 126, London, 1899.

and diversity of the fishes which soon appeared in the pool from the various crevices. The specimens were all small, the longest eel measuring 20 inches, and the longest of the other fishes 6 inches. Observations on the drugging were greatly hindered by the unexpected interest of the spectators, mostly women and children from Honaunau village. These Hawaiians, instinctive fishers, naturally became much excited when the fish began to swim around in a dazed and "catchable" condition. Women and children piled into the pool, clothes and all, in a desire to help, and caught fish right and left with the greatest glee. The light was too dull to photograph except with time exposure, or the very animated scene might have been visually recorded.

An incident that occurred during the *hola* fishing at Honanau illustrates a marked Hawaiian characteristic—the desire to please. After the first excitement had calmed down, and the fish had been sorted, named, and counted, the men were posed for their photograph with their somewhat insignificant catch (Plate XIX *A*). Just before the plate was exposed, the man on the left seized his stick, and jumping behind the rock where his father was standing, began to poke vigorously in the water. He was ordered back, as it was supposed he was merely chasing another fish. During a second pose he repeated the performance, and was called back with a severe reprimand. No explanation was given. On the third attempt to photograph the movement began again, and then an eel came flying through the air, kicked out of the water by the vigorous old man. This eel, the cause of the disturbance, was one of the kind called *puhi wela-wela* (=hot) because its bite causes a "hot wound"—and the patient fellows were doing their best to be accommodating while the half-drugged eel was swimming around their bare feet!

One and a half hours after the proceedings described, the pool was again visited. Fresh sea water had meanwhile entered and made a clear border two feet wide along one side of the pool. It contrasted very strongly with the green tint of the poisoned water. In the clear water there were a number of active *ohua*—apparently recent arrivals from the ocean. Half as many more fish as previously taken were seen lying dead on the bottom, including some eels. Other eels, however, were still struggling in the

drugged water or had moved on to the dry rocks. One of these placed for ten minutes in clear water to see if it would revive gave no sign of life.

Most of the dead fish were *ohua,* from one to two inches long. It is possible that they were overlooked previously on account of the excitement and the stained, but not turbid water. It is more probable, however, that they survived longer through greater power of resistance to the drug, as in the beginning their slowness to succumb had been noticeable. A holothurian in the pool and mollusks clinging to the sides did not appear to be affected, but it was difficult to make sure of their condition.

A list of the fishes caught is given herewith under their local names on the Island of Hawaii. There were 126 specimens identified, with the aid of the United States Fish Commissioner's Report for 1903, as 17 species.

List of fishes taken at Honaunau.

	Number first lot	Number second lot
Aeaea	5	....
Aholehole, Kuhlia malo	18	....
Alaihi, Holocentrus sp.	25	1
Aloiloi	2	....
Kikakapu, Chaetodon sp.	5	....
Kupipi, Abudefduf sordidus	3	....
Mamo	2	....
Manini, Hepatus sandvicensis	10	2
Ohua " "		20
Nunu, Aulostomus valentini	1	1
Palemo	3	2
Pauu, Myripristis chryseres	....	1
Puawowo	1	....
Puhi wela (eel)	3	10
Puhi uha kalakoa (eel)	1	3
Puhi paka (eel)	....	1
Upapalu, Amia menesema	5	....
Uu	1	....
	85	41

All the fish, except the eels, were taken home for food by the natives. The men said that they did not treat such fish differently in any way from those caught by other means, and that they were personally in no degree affected by the *hola*, neither during the pounding nor after eating the fish. Most, if not all, of the kinds of fish taken are customarily eaten raw without preparation. Some of the Oahu natives say that *hola* gives a bitter taste to fish entrails, which on this account are removed before the meal. In discussing the effect of fish poisons the natives have always appeared to think that what would kill fish would also kill human beings if taken internally, and yet they did not hesitate to eat the poisoned fish. It is true that there is a case on record of a woman having been killed by an infusion of *auhuhu, akia*, and leaves of *ipu awa-awa* administered in *awa* which she drank.[4] The native account is that she drank the *awa* and detecting an unusual bitterness declared that she had been poisoned. The story goes that she died shortly afterwards. As the Polynesians, however, were subject to self-hypnosis, it is possible that the woman died of fright. *Awa* itself is bitter, and one Hawaiian herbalist gave the information that *auhuhu* and *akia* were administered as human poison in *awa*, as the *awa* disguised the odor of the other ingredients.

The writer tested the effect of *auhuhu* on himself by chewing twigs, leaves, and seeds, but no uncomfortable effects were observed except a slight parching of the throat for the rest of the day.

In regard to the effect of *auhuhu* on animals, inquiries of ranchmen on Hawaii brought out the opinion that it is harmless to horses and cattle, although one ranchman said that some of his stock had been poisoned by eating the weed. The goat drivers when questioned said that neither goats nor cattle were affected by the poison in the plant. It would seem therefore that *auhuhu*, at least, has little or no harmful effect on the systems of warm-blooded animals, but the question is still a mooted one.

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[4] Wilkes, U. S. Exploring Expedition, vol. 4, pp. 30, 31, Philadelphia, 1844.

PLANTS USED IN HOLA FISHING.

The plants used by Hawaiians in hola-fishing were *auhuhu (Tephrosia piscatoria* Pers. = *T. purpurea* Pers.) and *akia (Wikstroemia* sp.), the former being the more highly prized. Indeed most of the better informed Hawaiians say that these were the only sources of fish poison. One reliable informant, however, added the bitter gourd *ipu awaawa (Cucurbita maxima* Duch.) to the list and explained that *akia* was not a very strong poison. *Akia* alone was sufficiently powerful to kill small fish, but to kill large ones the leaves or fruit pulp of the *ipu awaawa* were combined with it.

Hillebrand[5] mentionel *awa (Piper methysticum* Forst.) as a fish poison, but no confirmation of such use is obtainable from natives today. They say that *awa was* used by fishermen, but ridicule the idea of wasting it on fish. It is possible that Hillebrand had in mind the traditional custom of "feeding" *awa* to sharks in the process of "creating" shark gods. Rock[6] adds the *anapanapa* or *kukuku (Colubrina asiatica)* to the list, with the statement that it "was often used for stupefying fish." He was, however, unable to recall his authority but thought it was a man from Kauai. The writer has consulted old Hawaiians from Oahu, Maui, and Hawaii on the subject, and they deny that this shrub was used for narcotizing fish. We may admit the possibility that the plant was used for such a purpose on the Island of Kauai. The introduced *Plumeria* was mentioned by one Hawaiian as being used as a fish-poison, and there are probably many other plants suitable for the purpose. Quicklime is said to have been used in later times, occasionally, with *auhuhu* and *akia*.

Auhuhu is a small shrub, 1 to 3½ feet high, growing in the open on the rocky ground of the coastal region and of the valley slopes. Its best development is reached in the dry sections below the 300-foot level, and it has not been observed at a greater elevation than 1000 feet above the sea. Its stock is perennial, foliating thickly, fruiting after heavy rains, and dying back in dry weather.

[5] Hillebrand, W. F., Flora of the Hawaiian Islands, p. 384, Heidelberg, 1888.

[6] Rock, J. F., Indigenous Trees of the Hawaiian Islands, p. 283, Honolulu, 1913.

It was gathered for *hola* during the growing period, as the natives assert that it was without bitterness in its dormant state. This bitterness they associate with the poison. Plate XIX *B* illustrates a flowering and fruiting specimen from Oahu, about 2½ feet high, found growing in a soil pocket on a limestone slope and crowded by exotic vegetation.

In many localities *auhuhu* has been exterminated. Among the contributory factors are the competition of introduced plants, the native method of gathering, and the ravages of goats and cattle.

Heller, writing in 1897[7], reported *auhuhu* growing plentifully on the western slope of Diamond Head, Oahu, but in 1920, at the right season, the writer searched for it unsuccessfully. A native of Oahu claimed to have gathered the plant in Heller's locality in 1912, further asserting that this spot was noted for efficacious *auhuhu*. As for some years past, there have been dairy yards on the western side of the crater, and cattle trails high up on the slope were observed during the search mentioned, the disappearance of the plant in that locality was undoubtedly due to cattle. In 1919 while on the Island of Hawaii, the writer learned the goats had exterminated the *auhuhu* in a pasture of 6 to 8 square miles. The native goat drivers (who were also fishermen) reported that the goats ate the entire plant and that cattle ate the plant when in the dormant, but not in the growing state—without, however, destroying the root. Perhaps its greatest rival is the allied indigo[8] (*Indigofera anil L.*, introduced in 1836), which has found easy entrance on account of the fisherman's method of pulling up the *auhuhu* by the roots.

To present-day Hawaiians *akia* as a fish poison is less known than *auhuhu*, though as a medicine it is still in use. The older Hawaiians speak of two kinds, *akia manalo*, or *akia maoli*, which is not bitter, and *akia awawa*, the bitter form. The bitter variety is said to have been used for fish poison.

Hillebrand described seven species and four varieties of *Wikstroemia (akia)* in the Hawaiian Islands, varying in size from

[7] Heller, A. A., Plants of the Hawaiian Islands: Minnesota Geol. and Nat. Hist. Survey Bull. 9 (Minnesota Bot. Studies, vol. 1), p. 833, 1894-1898.

[8] Hillebrand. Op. cit.

small shrubs to small trees, and ranging from near sea level to an elevation of 7000 feet, but generally found growing in the lower forests. As the native vegetation is receding all these species become more and more difficult to find.

The same author has the following note on the genus[8]: "Like many other plants of this order, the Hawaiian Akeas [*akia*] contain an acrid narcotic principle, and are employed by the natives in common with Awa and Ahuhu [*auhuhu*] for narcotizing fish." He attaches the Hawaiian name *akia* to *Wikstroemia foetida*, var. *oahuensis*, which appears to have been the form most widely spread through these islands.

The writer has found it impossible to secure from the natives an identification of the particular form of *akia* used for fishing. Two specimens of the plant were collected on Oahu in 1920 by Mr. C. N. Forbes—mountain forms of *W. foetida* and *W. elongata*. The first specimen was shown to three natives, one of whom identified it as *akia maoli*, the medicinal form. He did not know of *akia* having been used for fishing. The second native identified it as *ahihi*, a form of *Metrosideros*, and the third as *koko*, a medicinal plant. Two of the men said they were acquainted with *akia* fishing.

Afterwards another native was engaged to collect the *akia awaawa* on Oahu. He returned confidently with a specimen of *W. foetida*, of a slightly different form from that previously collected by Mr. Forbes. All the specimens, including that of *W. elongata* were then submitted to a native from the southern part of Kona in the Island of Hawaii. He said they were not *akia awaawa*.

The specimens were then shown to the occupants of the Lunalilo Home for Aged Hawaiians. Some recognized the first specimen of *W. foetida* as the real *akia awaawa* and rejected the second specimen. A rather forceful old man said that none of the specimens was the right one; that the *akia awaawa* was a shrub about 2½ feet high with small leaves, almost round, and could be found growing at a certain place on the north side of Oahu.

The native from South Kona offered to send home for a specimen of the desired plant, but when it came, it was without blos-

[8] Op cit.

soms. Mr. Forbes, however, recognized it as a long-leafed form of *W. sandwicensis*. On a subsequent visit to the district of Puna, on the southeast coast of the Island of Hawaii, the writer made further inquiries concerning the *akia awaawa*, was shown a shrub, and obtained a specimen which Mr. Forbes identified as coming from a short-leafed form of *W. sandwicensis*.

While Hillebrand lists seven species and four varieties of *Wikstroemia* from these islands, the appearance of different specimens of the same species varies so greatly that the uninitiated might well suppose that the number of species was much greater. The blossoms are very small. From a consideration of the native accounts so far collected, it is evident that the term *akia awaawa* may be applied to many species of *Wikstroemia*, dependent on the uses to which local Hawaiians put them.

Referring to *akia*, Andrews[10] notes: "The bark is used to poison fish in fresh water as *auhuhu* is in salt." Some of the older natives say that *akia* and *auhuhu* were used alike in fresh or salt water, but that *auhuhu* was much the stronger. An experiment tried in fresh water on imported small rainbow fish gave the following results:— *Auhuhu* killed the fish in from 11 to 17 minutes, *W. foetida* in 38 minutes, and *W. elongata* in 19 minutes. The idea probably intended to be conveyed by Andrews was that *akia*, being generally found in the mountains, usually served for stream poisoning, while *auhuhu* growing near the shore was used in the sea. It is doubtful if *akia* would be used were *auhuhu* available or in season. In these experiments, after the first fish died the others were placed in clean well-aerated water, but none of the fish recovered.

The practice of *hola* has been almost, if not entirely abandoned in the Hawaiian Islands, owing in part to a lessening of the available poison plants, but in a large degree, probably, to the adoption of the equally reprehensible and even more destructive method of fishing with dynamite.

Fish-Poisoning in Samoa.

For the following account of fish narcotization in Samoa the writer is indebted to Mr. E. J. Mooklar, a chemist who resided in

[10] Andrews, Lorrin, Hawaiian Dictionary, Honolulu, 1865.

Tutuila from 1901 to 1912 and frequently witnessed the process there. Mr. Mooklar's description is more detailed than that of most writers on the subject of fish-poisoning in Southern Polynesia.

The narcotic that Mr. Mooklar saw in use was extracted from the unripe or green seed kernels of the *futu (Barringtonia speciosa)*. This tree is to be found growing luxuriantly along the sandy beaches of all the islands of Samoa, frequently with its roots in the salt water and its branches overhanging the sea. The buoyant seeds drop into the water in great quantities and, while some are carried away by wind and ocean currents. large numbers are washed back again to the beach where they sprout readily. The seeds are somewhat pyramidal in form, the husk corklike and fibrous. Those used for fishing are gathered from the trees. Though Seemann states that the husk was used, in the process seen by Mr. Mooklar (and other writers confirm Mr. Mooklar's account) only the kernel[11] was taken, being either pounded in stone mortars or grated to a coarse meal. The grater was a piece of tin plate roughly punctured by nails, then bent into semi-cylindrical form and fastened to a flat board.

The fishing was done in pools left by the receding tide. Very soon after grating the prepared meal the fishermen threw it into the water by handfuls, where it sank slowly. The effect of the poison was quick, as in a few minutes the fish were observed floating helplessly on their sides on the surface of the pool. They were taken as rapidly as possible, as the natives believed that the fish would recover if permitted to float into untreated water. It was also stated that human beings were in no way affected by eating the narcotized fish. While the process observed is modern it is probably similar to the older method, with the addition of the tin grater.

Though Mr. Mooklar did not know of the use of any other fish-poisons, several writers have spoken of other plants used for the purpose. Other fish-poisons reported as used in Samoa are *Tephrosia piscatoria*, which according to Brown[12] was mixed with

[11] Seemann, Berthold, Flora Vitiensis, p. 82, London, 1865-1873.

[12] Brown, Macmillan, Melanesians and Polynesians, p. 337, London, 1910.

taro when applied, and an unidentified beach vine mentioned by Mrs. Churchill[13], whose account is detailed and interesting. Her description of the plant suggests *Ipomea pes-caprae* or *I. terebrethum*, but the bitter taste described is lacking in the Hawaiian *Ipomea*. It is possible that the plant was *Derris uliginosa* Benth, which Seemann[14] reports as used for poisoning fish in Fiji, and which approximately agrees with Mrs. Churchill's description. The well-known writers on Samoa—Stair[15] and Turner[16]—do not mention fishing by poison.

The fish poison most used in Polynesia in ancient times was from *Barringtonia speciosa*, which was plentiful in the South, but did not grow in the Hawaiian Islands. According to Williams[17] it was used by the Polynesians from Tahiti to Tonga, and other writers report its use in Fiji[18], Guam[19], and the Solomon Islands[20]. When in abundance its preparation was probably quicker than the poisons used by the Hawaiians, a fact which may explain the southern preference for the *Barringtonia*. *Tephrosia piscatoria* is reported by Gray[21] as occurring also in the Society group, Samoa, Tonga, and Fiji, and it was used in the Society Islands[22] and Samoa[23]. *Wikstroemia foetida* was also found in the Society and Marquesas groups, Samoa, and Fiji[24], and was used in the Society group mixed with *Barringtonia*[25] seeds. Seemann notes that neither

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[13] Churchill, Mrs. Llewella, Samoa 'Uma, p. 122, London and New York, n. d.

[14] Seeman, Berthold, Viti, p. 339, Cambridge, 1862.

[15] Stair, J. B., Old Samoa, London, 1897.

[16] Turner, George, Samoa a hundred years ago, London, 1884; Nineteen years in Polynesia, London, 1861.

[17] Williams, John, Missionary enterprises, p. 501, London, 1838. See also Ellis, William, Polynesian researches, vol. 1, p. 140, London, 1853; Christian, F. W., Eastern Pacific lands, p. 65, London, 1910.

[18] Seeman, Berthold, Viti, p. 339, Cambridge, 1862.

[19] Safford, W. E., Useful plants of Guam: Contr. U. S. Nat. Herb., vol. 9, pp. 81-82.

[20] Guppy, H. B., The Solomon Islands, p. 158, London, 1887.

[21] Gray, Asa., U. S. Exploring Expedition, vol. 15, Botany, p. 407, Philadelphia, 1854.

[22] Ellis, Op. cit.

[23] Brown. Op. cit.

[24] Gray. Op. cit.

[25] Seemann, Berthold, Flora Vitiensis, p. 207 (quoting Solander).

this plant nor *Tephrosia piscatoria* were observed as fish poisons in Fiji.

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A, MAKING HOLA: (1) FIRST POUNDING.

B, MAKING HOLA: (2) TWO OUTER MEN STRIPPING BARK; (3) MAN ON INNER RIGHT AT THE FINAL POUNDING.
(By request, the wood was thrown into the foreground.)

A, HOLA IN GRASS "SPOONS."

***B*, APPLYING HOLA.**

A, THE CATCH.

B, AUHUHU, TEPHROSIA PISCATORIA PERS.
(A small space was cleared around the shrub before photographing)