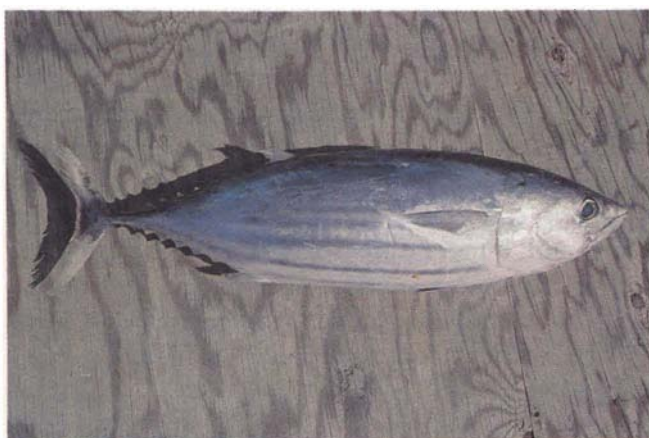


FISH



AKU

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are found, live bait such as nehu is thrown overboard to keep the aku circling. This is called "chumming." The fishermen then catch the aku with barbless hooks.

A weekend fisherman can catch aku by trolling and looking for the seabirds. An artificial lure or live bait is attached to a handline, which is cast 30 to 40 feet off the boat. The average aku caught by hook and line weighs about 10 pounds and produces about 5 pounds of lean flesh.

Aku is most abundant from April to September. The price of aku varies with the supply. At New Year's, when the catch is low and demand is high, the price is highest.

Scientific name: *Katsuwonus pelamis*
 Other names: Katsuwo, Skipjack tuna

The skipjack tuna, locally known as aku, is the most abundant and commercially important species in Hawaiian waters. Millions of pounds are caught every year. In Hawaii, most of the aku catch is canned at the Kewalo Basin plant of Hawaiian Tuna Packers.

Description

Aku is a deep-sea fish. It is one of the more popular game fish because it is fast and powerful, with a gallant fighting style when hooked. An aku can be as large as 50 pounds, although the average fish caught weighs 10 to 20 pounds. It is a lean fish with a rich red flesh.

Commercial fishermen catch aku with hook and line. The aku boats search for flocks of diving seabirds that follow the aku schools. Once the schools

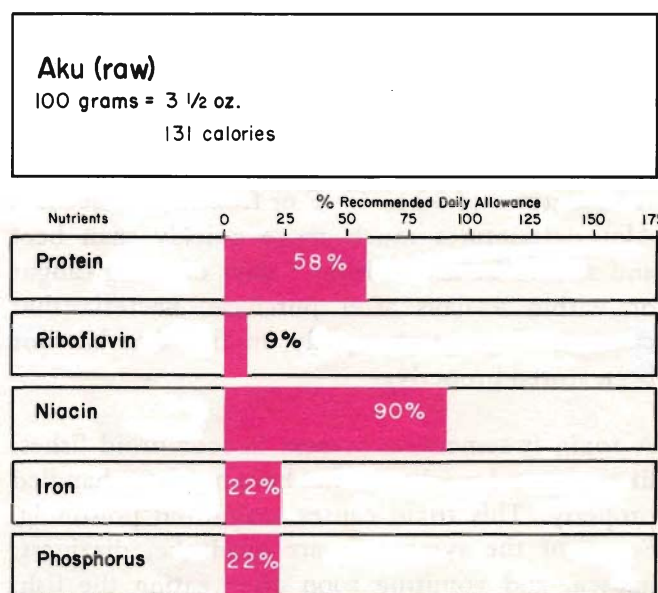


Figure 1. Major nutrients in 100 grams raw aku flesh, given as percentage of U.S. RDA.

Aku can be bought at almost any market in Hawaii. When buying aku meat, look for a rich red color in the flesh. When buying whole aku, look for a fish whose eyes are bright, clear, and bulging. The gills should be reddish pink with no sour odor, and the skin should be shiny but not slimy.

Nutrition Information

A 3½-ounce portion (100 grams) of aku fillet contains more than half of an adult's recommended dietary allowance (RDA) of protein, or 26 grams (see Fig. 1). This portion contains 2 grams of fat and provides 131 calories. Fish is generally similar in protein content to a comparable weight of meat, but is generally lower in total fat, saturated fat, and cholesterol. Aku flesh is not a good source of vitamins A, B₁ (thiamin), and C, or of calcium.

Nutrients in 100 g aku	
Calories	131
Protein	26 g
Calcium	8 mg
Phosphorus	220 mg
Iron	4.0 mg
Vitamin A	33 IU
Thiamin (vit. B ₁)	.03 mg
Riboflavin (vit. B ₂)	.15 mg
Niacin	18.0 mg
Ascorbic acid (vit. C)	2 mg

Storage and Preservation

The proper handling of aku is very important. It should be chilled immediately after being caught or purchased; then it may be stored at temperatures of 30 to 40°F or frozen until needed. Aku deteriorates much more quickly than beef and should be used within 7 days of being caught or within 4 days after purchase. Bacteria that cause spoilage grow rapidly on fish that has not been stored properly.

A toxin is sometimes present in scombroid fishes, like tuna and mackerel, that have not been handled properly. This toxin causes scombroid poisoning. Some of the symptoms are headache, dizziness, nausea, and vomiting soon after eating the fish. Scombroid poisoning is very rare, however, and is not considered fatal.

Freezing is the preferred method of preserving aku; it can be kept in the freezer for about a month before it starts to deteriorate. In general, aku will keep better if left whole.

Aku can also be dried. Cut it into strips and dry in the sun for 1 or 2 days, or until hard and dry. Protect the drying aku from flies and other insects. Dried aku should be stored in the refrigerator or freezer.

Home canning of aku is not generally recommended as a method of preservation because of the possibility of contamination by *Clostridium botulinum*, an organism that can cause a lethal illness called botulism. In order to can aku safely it must be processed at high temperatures (above boiling) for long periods of time. This method requires a good pressure cooker, jars and lids in excellent condition, and careful attention to the times and temperatures needed for safe canning. If you want more specific information on canning aku, contact your local Cooperative Extension Service office for additional instruction and suggestions.

Food Uses

Aku can be baked or fried; it can also be eaten raw, as sashimi or poke. Generally, aku can be used in any recipe that calls for lean fish. Although aku fillets are very popular, many people prefer the taste of the "aku belly" because of its higher fat content.

Aku can be defrosted and cooked in the microwave oven. Check for doneness at the minimum recommended time to prevent overcooking. Microwaves penetrate fish more quickly than red meat, so cooking time for fish is shorter.

The eggs, or roe, sometimes found in the female aku can be pan fried or cooked oriental style with shoyu, sugar, and ginger.

Akuburgers

- 1 lb. aku, mashed
- 1 small round onion, finely chopped
- 2 green onions, finely chopped
- 3 slices bread, cut in ¼-inch cubes
- ½ c. milk
- 1 egg, well beaten

½ t. salt
Dash of pepper
2 eggs, well beaten
2 c. crushed cornflakes (3 c. uncrushed)
Salad oil

1. Mash the aku until it is the consistency of hamburger. A blender may be used.
2. Combine the mashed aku with the next seven ingredients and mix well.
3. Form into 3-inch patties.
4. Dip patties into beaten eggs and roll them in the crushed cornflakes.
5. Fry patties until brown in a small amount of salad oil (about 1 T.) or use a skillet with a nonstick coating.
6. Place patties on absorbent paper to remove excess fat.
7. Serve with a sauce such as shoyu-ginger, mustard-shoyu, or tonkatsu. Yield: 12 three-inch patties.

Katsuwoboshi

1 lb. aku fillet
Water
Salt (optional)

1. Boil aku in water just to cover for about 20 minutes, or until cooked. Drain.
2. If the fillet is more than 1½ inches thick, slice lengthwise into 2 pieces.
3. Place fish in baking pan. Sprinkle with salt if desired.
4. Bake in oven at 300°F for 2 hours, or until brown, hard, and dry.
5. Grate or slice the fish and use on vegetables or serve as a side dish. Store in the refrigerator or freezer until used.

Fried Aku Belly

2 lb. aku belly
Salt
Pepper
1 to 2 t. salad oil for frying

1. Lightly salt and pepper the aku belly, which has been cut into serving-size pieces.
2. Pan fry in a very small amount of oil until soft and brown.
3. Serve with shoyu and lemon juice. Yield: 4 servings.

Other Uses

The inedible parts of the aku can be composted or used as a high-nitrogen fertilizer. Aku scraps can also be used as fish or crab bait. At the cannery, the head, bones, and other by-products are dried and ground into fish meal. The juices of the fish are used to make a concentrated protein supplement for cattle, pig, and chicken feed.

A steady diet of aku is not recommended for cats, who may develop a condition known as steatitis, or yellow fat disease, when fed exclusively on tuna. Commercial cat food made from tuna is fortified with vitamin E to prevent this condition from developing.

For More Information

Contact the Sea Grant Program, University of Hawaii at Manoa, or the Hawaiian Tuna Packers.

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