

Fanha'aniyan Pulan Hamoru

January 4, 2022 - January 22, 2023



Western Pacific Regional
Fishery Management Council

WPCOUNCIL.ORG

Lehi

Rusty Jobfish / Grey Jobfish • lehi • *Aphareus rutilans*

LIFE HISTORY INFORMATION: Native to Indian and Pacific Oceans from the African coast to the Hawaiian Islands. • Prefer inshore waters with coral reefs and rocky bottoms at depths of ~20 ft to >330 ft. • Can be solitary or occur in small schools.

LOCAL KNOWLEDGE: Fishers catch Lehi in vessels ranging from small boats or kayaks to larger boats as a non-target fish in nearshore and shallow bottom offshore.

CURRENT REGULATIONS: FEDERAL: A permit is required for any large vessel (50 feet or longer) fishing for, landing, or transshipping bottomfish management unit species (BMUS) in the U.S. exclusive economic zone seaward of Guam. Large vessels are not allowed to bottomfish in the Guam large vessel prohibited area. Fishing is also managed under an annual catch limit for the BMUS complex.

COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS: Overfished (population size is too low), but not experiencing overfishing (fish are being removed at a sustainable rate).



Beer Battered Jobfish

INGREDIENTS

1 can beer (any type)
2 cups all-purpose flour
salt and pepper, to taste
1 2-lb fish (kept moist with water or beer)
vegetable oil for frying

INSTRUCTIONS

Mix flour, salt, black pepper. Add beer, stirring constantly to prevent clumping, until smooth. Sprinkle salt and pepper on both sides of the fish. Heat oil in a pan. Dip fish into batter, then deep fry in hot oil. When golden brown, remove from oil and dry on paper towels. Serve with tartar sauce.

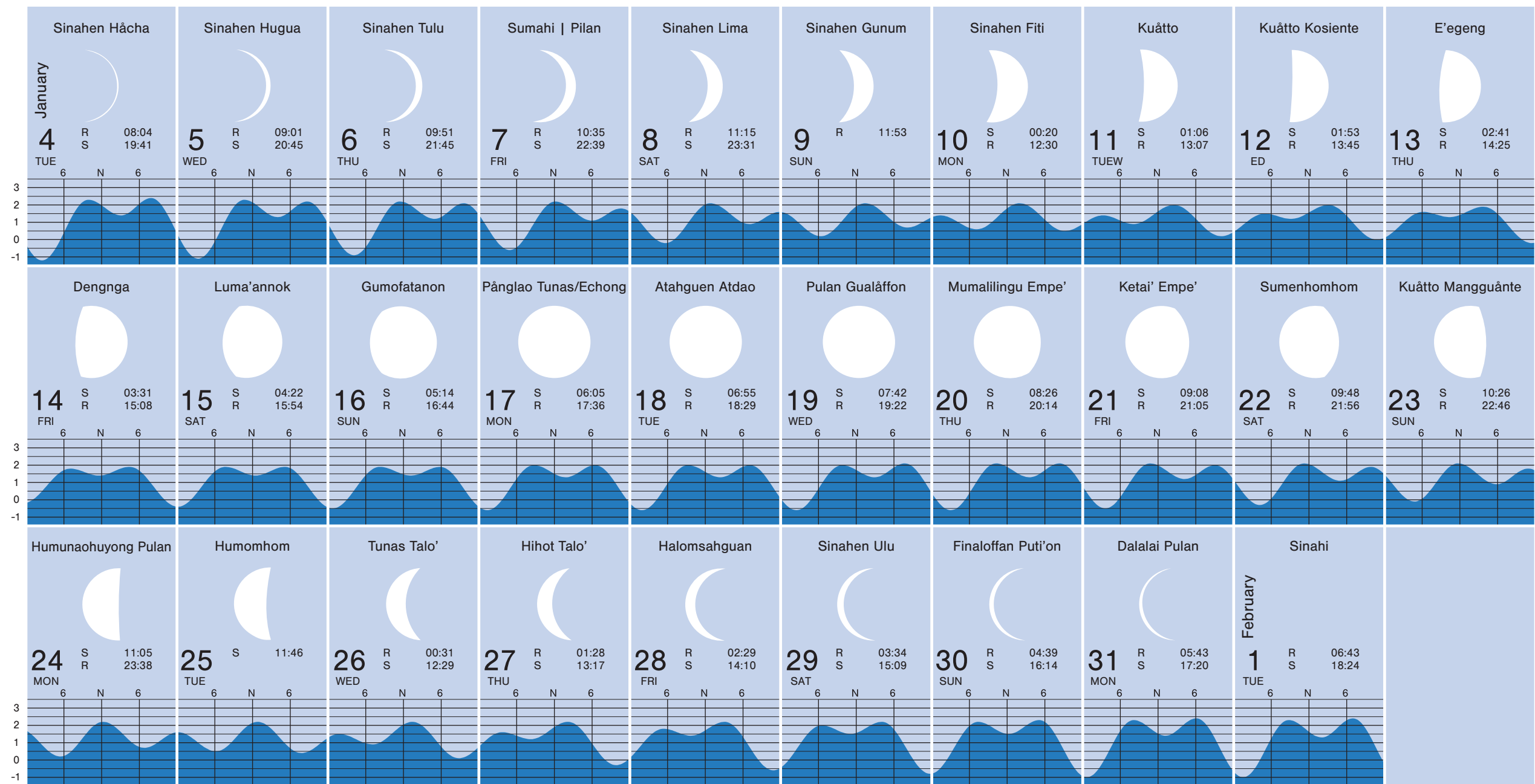
Courtesy Nancy GV Reyes



FISHERY INFORMATION: Deep-sea rod and reel - this hook-and-line method of fishing uses a heavy mainline that is lowered and raised with electric, hydraulic or hand-powered reels. 4 to 10 circle hooks (and sometimes metal jigs), baited with squid or fish, branch off the mainline using monofilament lines. Glow beads are attached near each hook and glow sticks or lights are attached near the top of the leader. A "chum" or bait bag containing chopped fish like skipjack tuna or squid is sometimes suspended on the mainline above the hooks to attract fish.

Umayangan

January 4 - February 1
Ineru 4 - Fibreru 1, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Giant Trevally

Giant Trevally ▪ **mamulan** ▪ *Caranx ignobilis*

LIFE HISTORY INFORMATION: Sexually mature at 21-24 in and 3-4 yrs old. ▪ Widely distributed throughout the tropical and subtropical waters of the Bay of Bengal, Indian and Pacific Oceans. ▪ Inhabit a range of offshore and inshore marine environments, as well as the low salinity waters of estuaries and rivers. ▪ Spawning occurs during the warmer months in most locations.

FISHERY INFORMATION: Targeted by using all methods of fishing, including spear, trolling, surface casting, live bait, fresh bait, chenchulu, tekkin and even jigging.

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COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS:
Overfished, but not experiencing overfishing.



Boñelus Guihan

INGREDIENTS

1-2 lb fish, deboned
1 can evaporated milk
1 cup all-purpose flour
salt and pepper, to taste
¼ tsp garlic powder
1 tbsp baking power
2 eggs
1 box frozen mixed vegetables
vegetable oil for frying

INSTRUCTIONS

Finely chop fish. Combine all ingredients and form into doughnut shapes. Heat oil in a pan over medium heat. Use spoon and drop into hot oil. When golden brown, remove from oil and dry on paper towels.

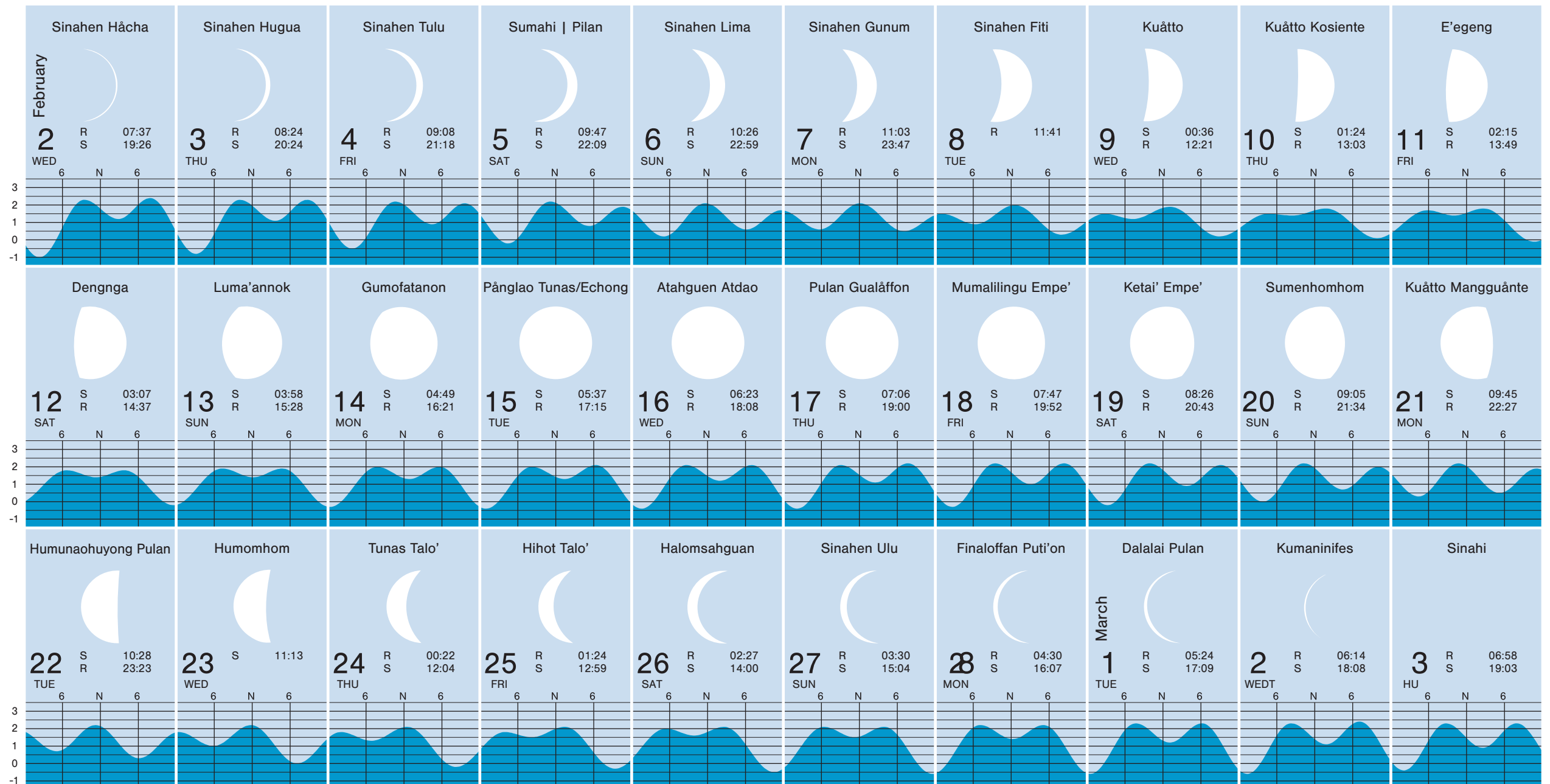
Courtesy Nancy GV Reyes



LOCAL KNOWLEDGE: Giant Trevally is a popular table fish, usually eaten raw as sashimi. This fish is often called i'e when juvenile, then tarakituyan, tarakitu and mamulan as it grows to be an adult. A predatory fish, it is known to swim alone or in large schools close to drop offs and is sometimes caught in brackish water near river mouths.

Tumaiguini

February 2 - March 3
Fibreru 2 - Måtso 3, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Ehu

Ruby Snapper / Ehu ▪ **buninas agaga'** ▪ *Etelis carbunculus*

LIFE HISTORY INFORMATION: Size - up to 12 in. ▪ Indo-Pacific distribution, inhabiting both continental shelf and slope waters from 295 to 1,150 ft deep.

FISHERY INFORMATION: Targeted to use as bait for larger deepwater species. Caught using deep-bottom rigs, some with multiple hooks on leaders up to 50-feet long.

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COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS:
Overfished, but not experiencing overfishing.



Linguine 'n Buninas

INGREDIENTS

8 oz linguine
2 cups bite-sized buninas
¼ cup chopped parsley
¼ cup olive oil
boonie pepper and salt, to taste

INSTRUCTIONS

Add linguine to boiling water; cook until desired doneness. Heat a large frying pan over medium heat. While pasta is cooking, add all remaining ingredients into the pan; mix well. Cook until fish is done. Drain the pasta, retaining ½ ladle of water. Add pasta to frying pan, along with the pasta water. Toss gently and stir for another 30-60 seconds. Serve immediately topped with additional chopped parsley.

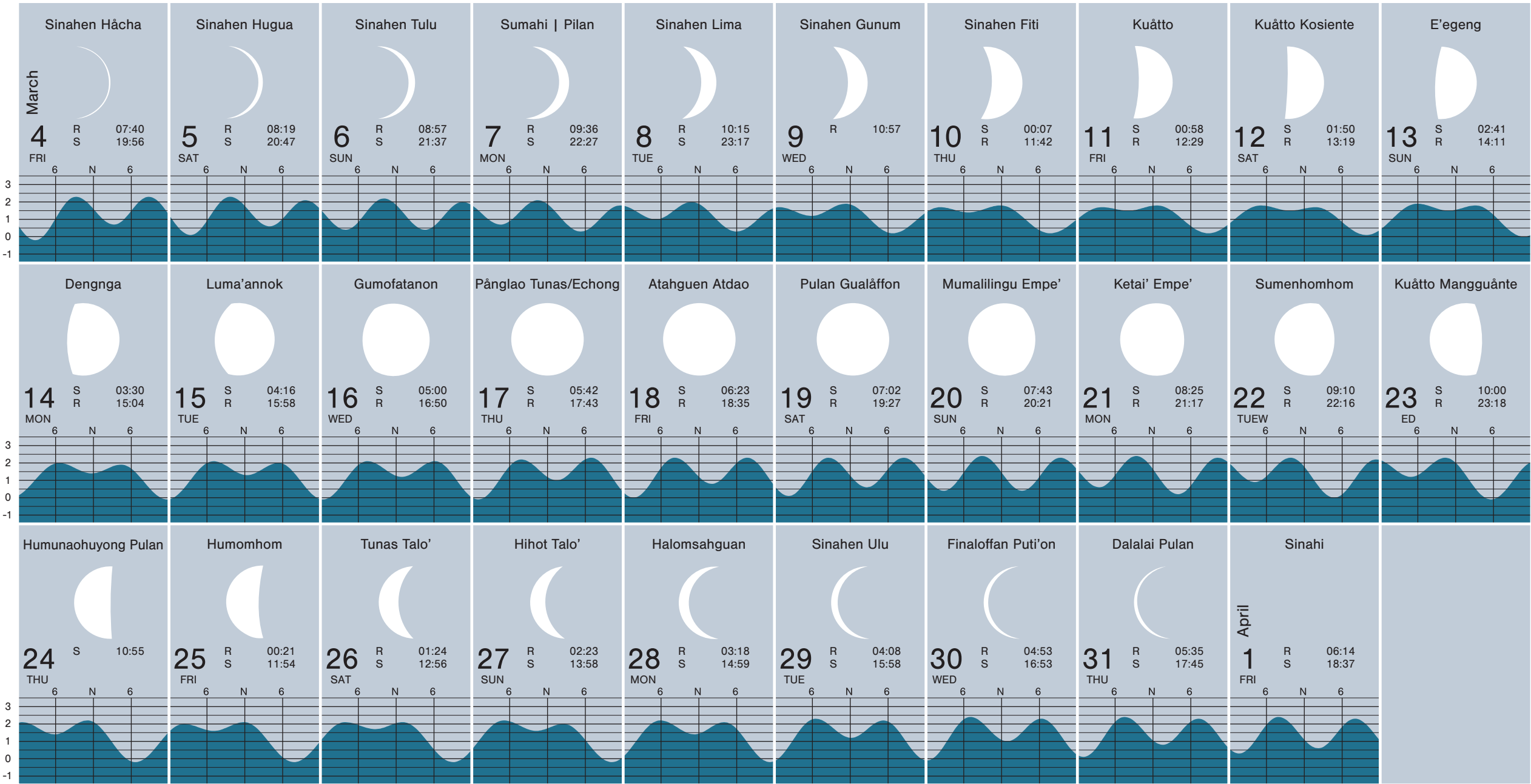
Courtesy Leslie Aquino



LOCAL KNOWLEDGE: Ehu was not caught locally until the early 20th century with the advent of electric reels due to the depth of its habitat.

Maimo

March 4 - April 1
Måtso 4 - Abrit 1, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Gindai

Oblique-Banded Snapper / Gindai • **buninas rayao amariyu**
Pristipomoides zonatus

LIFE HISTORY INFORMATION: Sexually mature at 11 in and ~1 yr. ▪ Average estimated maximum age is 14 yrs. ▪ Inhabit tropical waters in the Indo-Pacific and Central Pacific Ocean. ▪ Found on rocky reefs on the continental shelf and upper slope, from 230 to 985 ft deep (most abundant between ~330 and 660 ft). ▪ Diet - fishes, shrimps, crabs, cephalopods and other invertebrates.

FISHERY INFORMATION: Caught with deep-sea rod and electric reel, gindai are one of the more sought after deep bottom species due to its delicate taste and small size. The fish has four orange or yellow stripes down its sides and is a bright, pretty fish. Although they can be found year-round near bottom structures like offshore banks and sea mounts, their peak spawning period is during the warm summer months.

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COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS:
Overfished, but not experiencing overfishing.



Recipe Photo: Ray Santiago

Crispy Fried Gindai

INGREDIENTS

1 average-sized whole fish
salt and pepper, to taste
vegetable oil for frying

INSTRUCTIONS

Clean fish thoroughly, remove all scales and score sides to the bone. Add salt and pepper to both sides and into the scored cuts. Heat oil in a pan and deep-fry fish. When golden brown and crispy, remove from oil and dry on paper towels.

Courtesy Mary Camacho

LOCAL KNOWLEDGE:

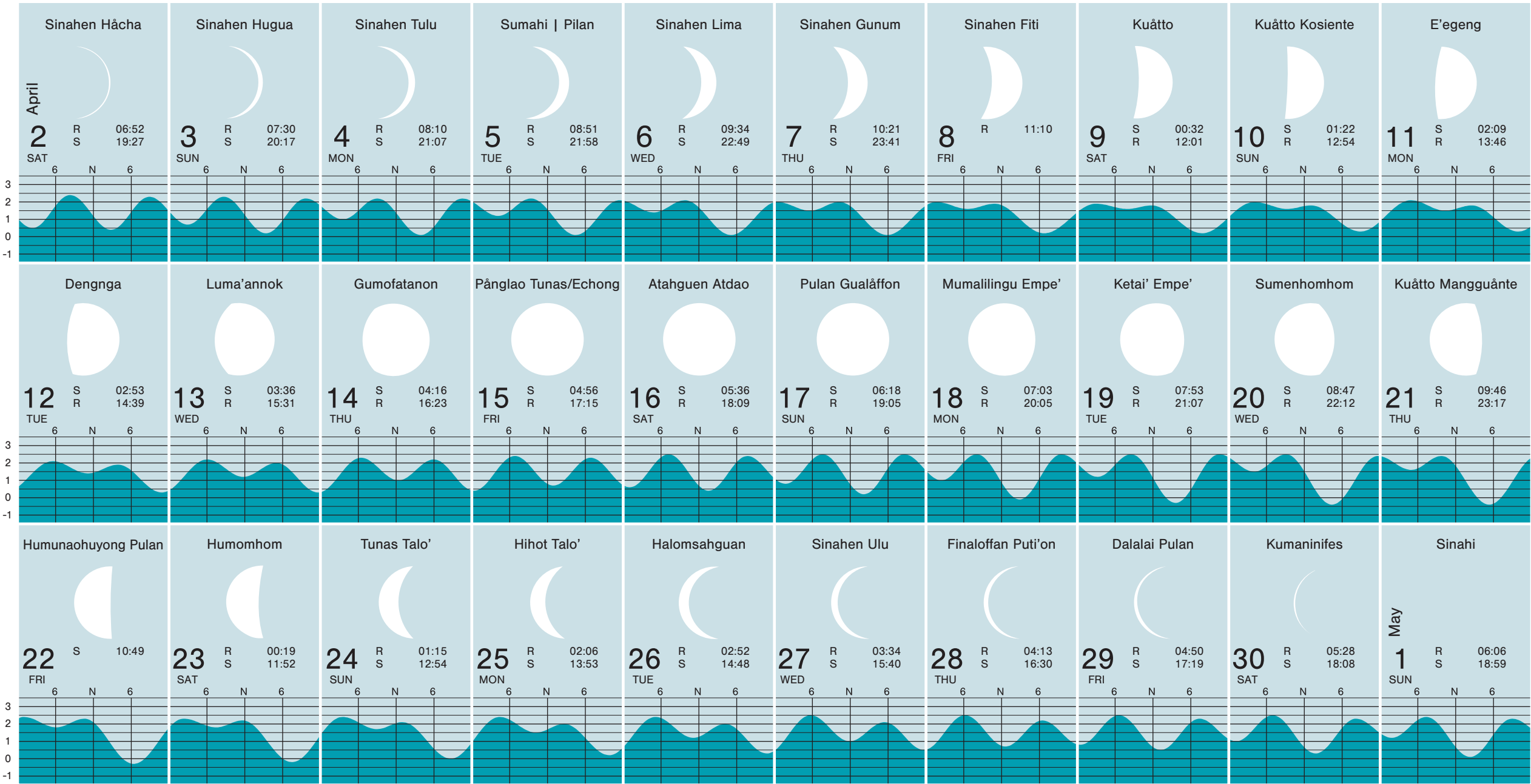
Gindai is a favorite for many locals because of its delicate meat and flavor. Its small size makes it easy to prepare. Delicious breaded and fried or salted and fried.



Fish Photo (bottom left): Audrey Toves, (top right): Floyd Masga

Umatalaf

April 2 - May 1
Abrit 2 - Måyu 1, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Onaga

Flame Snapper / Onaga ▪ **abuninas** ▪ *Etelis coruscans*

LIFE HISTORY INFORMATION: Size - up to 31 in and 35 lbs. ▪ The oldest known was 54 yrs old and 31 in. ▪ Sexually mature at 10 yrs. ▪ Inhabit waters from 600 to 1,200 ft deep.

FISHERY INFORMATION: Caught with deep-sea rod and electric reel using monofilament or braid with leaders and a single hook, or up to 50 feet with multiple hooks. A long thin line is tied to the bottom of the rig with a heavy weight at the lower end to allow for breakage and save the rig. Long leaders are common - a light is attached near the leader and glow beads at the base of each hook. A chum bag is also attached to the top of the leader with chopped bonita or other fish. Some fishermen carry different weights to use depending on the current strength.

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COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS:
Overfished, but not experiencing overfishing.



Deep-Fried Onaga Chunks

INGREDIENTS

1 onaga fillet, cut into 2-in chunks
salt and black pepper, to taste
1 bag Panko bread crumbs
vegetable oil for frying

INSTRUCTIONS

Season fish with salt and pepper. Roll in a bowl of Panko until covered on all sides. Heat oil in a pan and deep-fry chunks until golden and crusty on the outside. Remove from oil and dry on paper towels.

Courtesy Matthew Orot

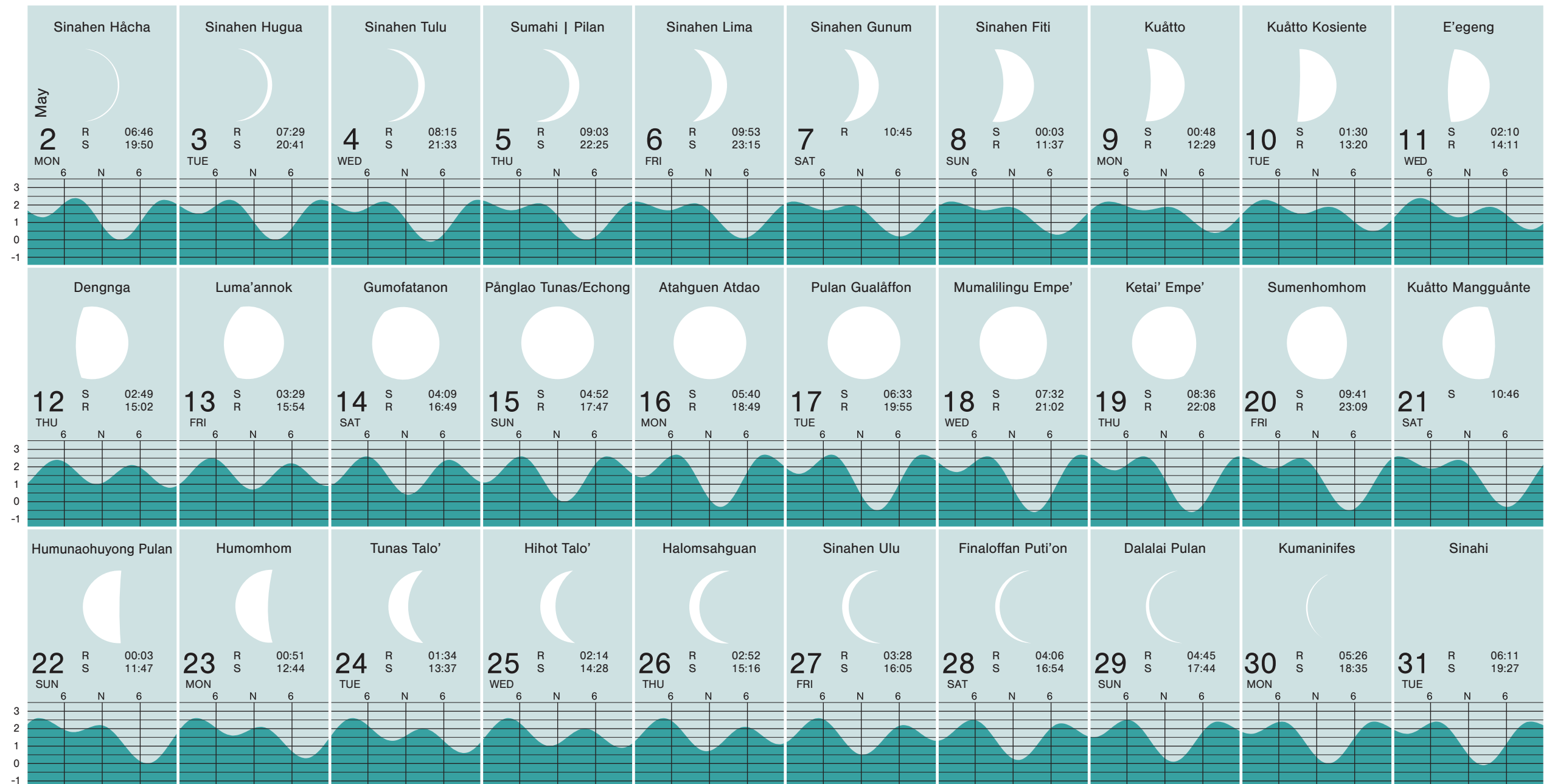


LOCAL KNOWLEDGE: Onaga is an important component of the quasi-commercial and recreational deep-water fishery in Guam. It is one of the more valuable species because of its local popularity.

Lumuhu

May 2 - May 31

Måyu 2 - Måyu 31, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Opakapaka

Yelloweye Snapper / Opakapaka ▪ **buninas**
Pristipomoides flavipinnis

LIFE HISTORY INFORMATION: Size - up to 20 in and 20 lbs. ▪ Adults occur over rocky bottoms down to 295 to 1,180 ft deep. ▪ Diet - benthic fishes, crustaceans, squids and pelagic tunicates.

FISHERY INFORMATION: Caught with deep-sea rod and electric reel using monofilament or braid with long leaders.

CURRENT REGULATIONS: FEDERAL: A permit is required for any large vessel (50 feet or longer) fishing for, landing, or transshipping bottomfish management unit species (BMUS) in the U.S. exclusive economic zone seaward of Guam. Large vessels are not allowed to bottomfish in the Guam large vessel prohibited area. Fishing is also managed under an annual catch limit for the BMUS complex.

COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS:
Overfished, but not experiencing overfishing.

Bottomfish in Oyster Sauce

INGREDIENTS

1	3 to 5-lb fish
	vegetable oil
1	onion, chopped
2 cloves	garlic, chopped
1 tbsp	ginger, minced
½ cup	kimchee base
½ cup	water
	sea salt, to taste
¼ cup	lowfat milk
2 tbsp	oyster sauce

INSTRUCTIONS

Fry fish in oil for about 2 minutes. Place fish in deep baking pan, cover with foil and bake at 350°F for 20-30 minutes. Add remaining ingredients, cover and bake for additional 10 minutes.

Note: Remove excess water, if needed. If too salty, add water or lowfat milk.

Courtesy Lino Tenorio

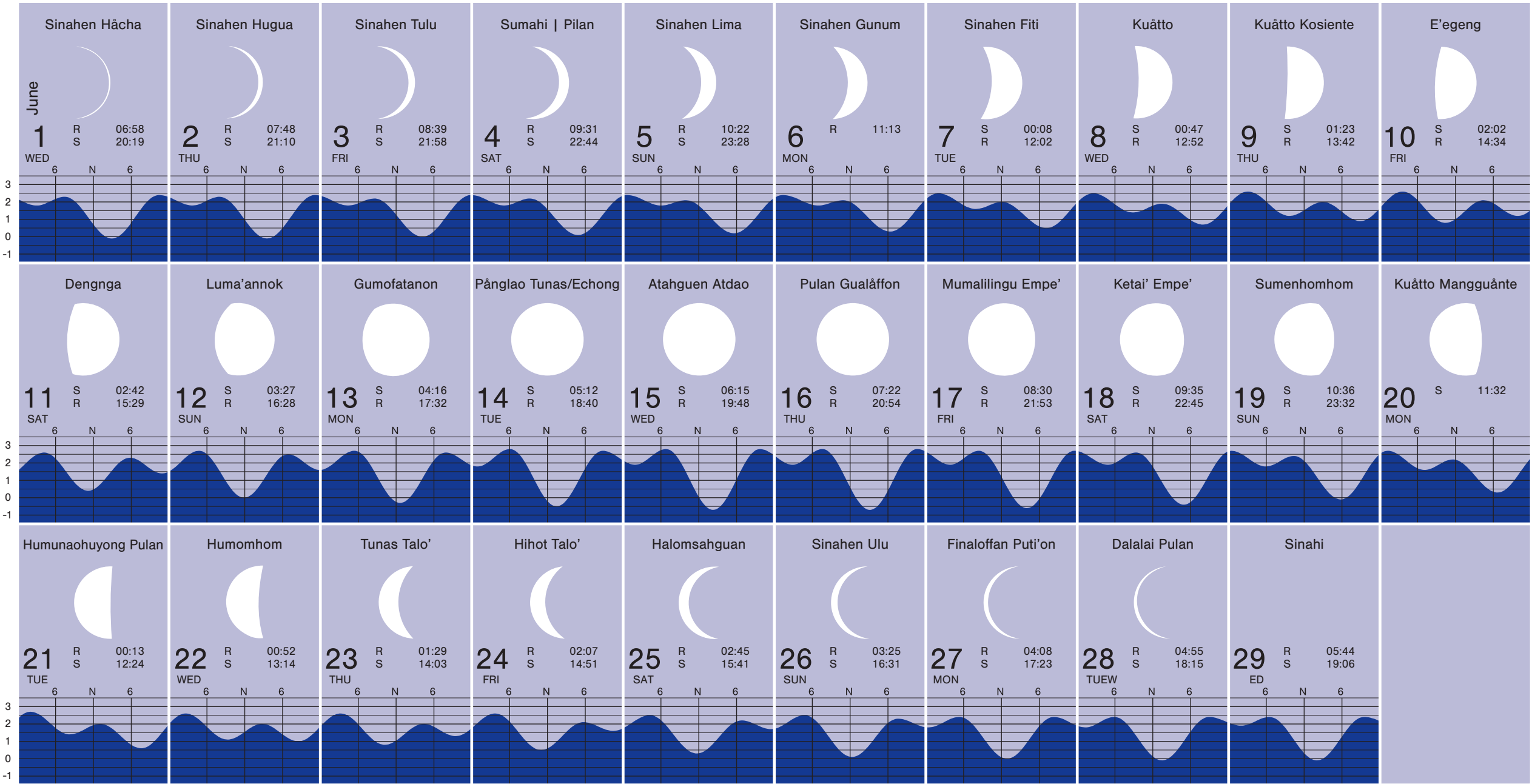
LOCAL KNOWLEDGE:

Opakapaka can be found near dropoffs and around flat bottoms. It is often not the target species. Although caught year-round, fishers often find the species around the southern parts of Guam and offshore banks during the colder winter months. Due to its rarity, Opakapaka is usually kept by the fishers for home consumption. Its meat is light pink and is excellent steamed and as sashimi.



Makmamao

June 1 - June 29
Huniu 1 - Huniu 29, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Redgill Emperor

Redgill Emperor • **mafute'** • *Lethrinus rubrioperculatus*

LIFE HISTORY INFORMATION: The oldest known was 8 yrs old and 20 in. • Sexually mature at 1 yr and 8-10 in. • Found over sand and rubble areas of outer reef slopes, from 33 to 650 ft deep. • Diet - crustaceans, fish, echinoderms and mollusks.

FISHERY INFORMATION: Caught with deep-sea fishing gear using electric reels and fresh squid or tuna as bait. The length of the leader and number of hooks is the fisher's preference, but circle hooks are normally used. Heavy weights are tied to the bottom of the leader to bring the bait to the bottom quickly, with the bait suspended several feet above the seafloor, where the fish are normally found.

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COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS:
Overfished, but not experiencing overfishing.



Recipe Photo: James Borja

Steamed Mafute'

INGREDIENTS

1 pan-sized mafute'
1 cup water
2 tbsp sesame oil
salt and pepper, to taste
2 tbsp soy sauce
½ cup cornstarch
¼ cup green onions, coarsely chopped

INSTRUCTIONS

Clean and scale fish. Place in a shallow pan with water and bring to boil. Cover. Steam until done.

Mix sesame oil, salt, pepper and soy sauce; thicken with cornstarch. Place fish in a deep serving platter, add sauce and top with green onions. Serve hot.

Courtesy James Borja

LOCAL KNOWLEDGE:

One of the more abundant emperors, they are found year-round and easily caught. Fishers enjoy hooking Mafute' because it fights as if it were a larger fish.

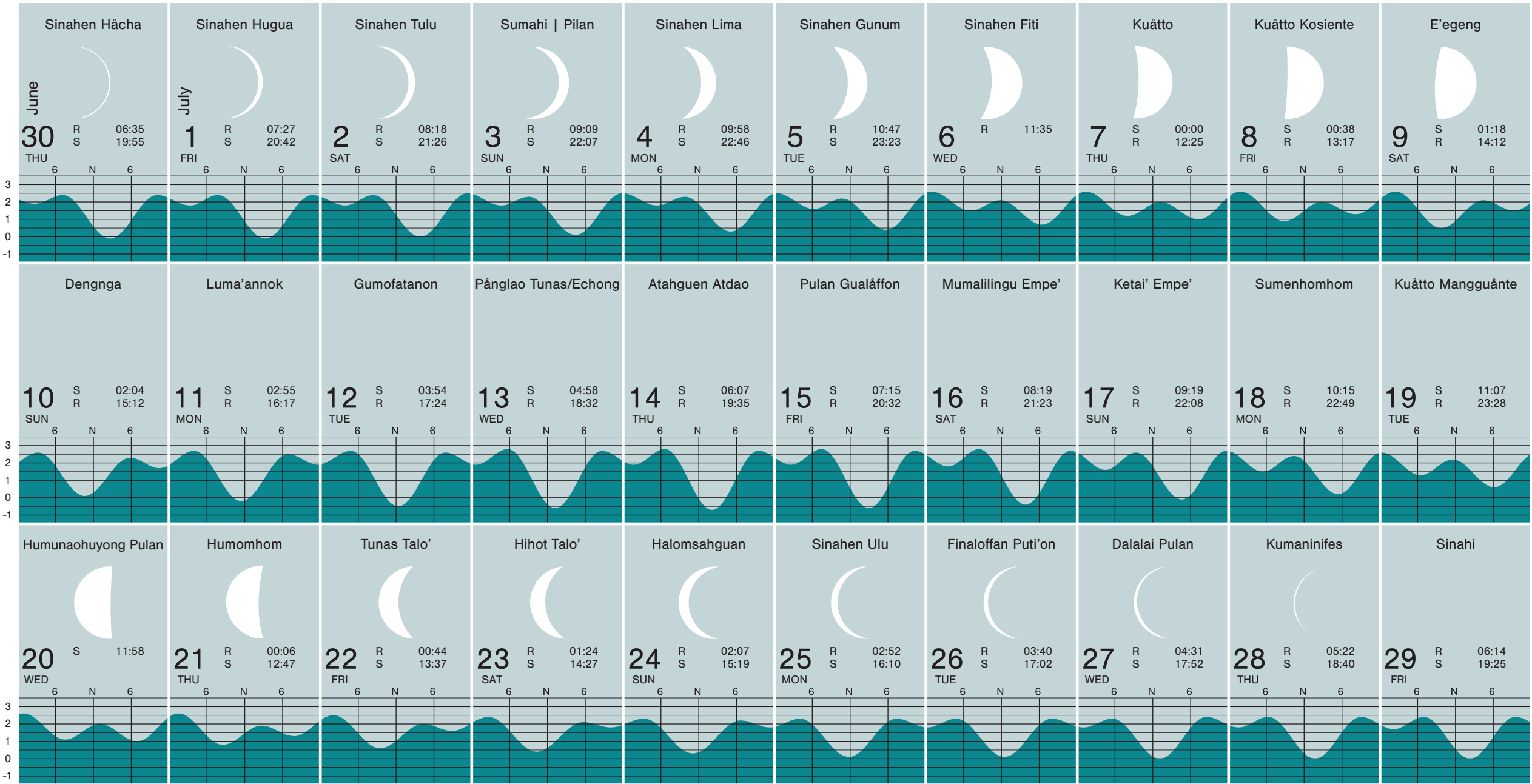


Fish Photo (bottom left): Frank Colnago, some rights reserved (CC BY-NC), inaturalist.org
(top right): Mike Fleming (w/grandson Eduardo Diaz)



Mananaf

June 30 - July 29
Huniu 30 - Huliu 29, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES

Lyretail Grouper

Lyretail Grouper ▪ **gadau matingon** ▪ *Variola louti*

LIFE HISTORY INFORMATION: Size - up to 32 in. ▪ Inhabit tropical waters in the Indo-Pacific. ▪ Found on coral reefs, from 10 to 790 ft deep.

FISHERY INFORMATION: Caught with deep-sea rod and reel gear with a heavy braid or monofilament line. Tend to swim near the seafloor and are caught using fresh squid, octopus, atulai or tuna as bait.

CURRENT REGULATIONS: FEDERAL: A permit is required for any large vessel (50 feet or longer) fishing for, landing, or transshipping bottomfish management unit species (BMUS) in the U.S. exclusive economic zone seaward of Guam. Large vessels are not allowed to bottomfish in the Guam large vessel prohibited area. Fishing is also managed under an annual catch limit for the BMUS complex.

COUNCIL MANAGEMENT: Currently monitored as part of the BMUS complex. A rebuilding plan is in place to address the overfished stock status.

STOCK STATUS:
Overfished, but not experiencing overfishing.



Fish in Tomato Stew

INGREDIENTS

1 2-lb whole fish
½ onion, diced
1 head of garlic, chopped
6 tomatoes, diced
salt, to taste
1 tsp canola oil
½ cup water
1 egg, beaten
fish sauce, to taste

INSTRUCTIONS

Lightly salt the fish and fry until golden brown.
Put one teaspoon of canola oil in a pan on medium heat. Saute the onion and garlic. Add the tomatoes and cook until reduced. Add water and let simmer. Add egg to the pan and mix. Add the fried fish and simmer for 2 minutes.

Courtesy Marlowe Sabater

LOCAL KNOWLEDGE:

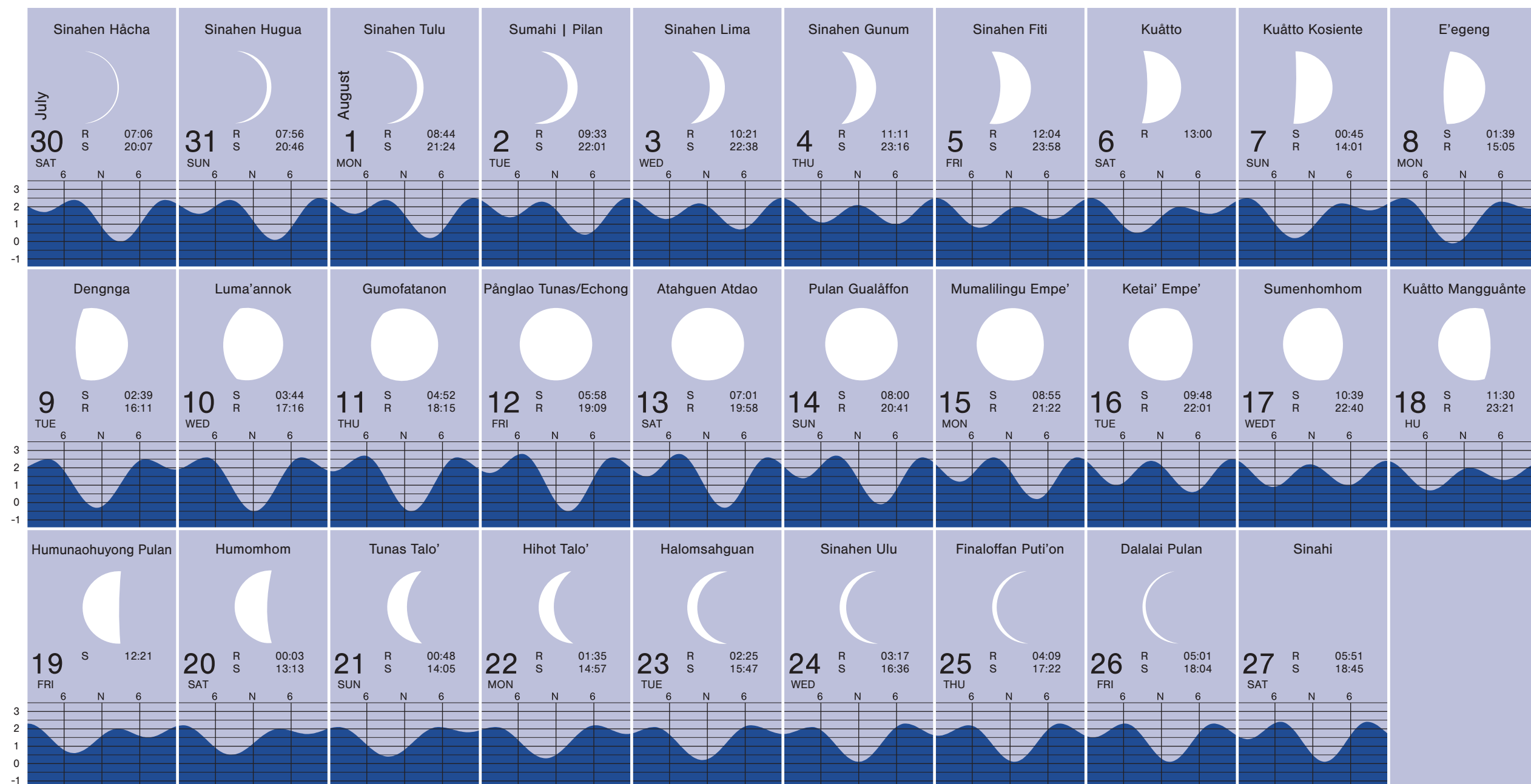
Lyretail Groupers are usually found at deep, offshore banks and undersea mounts, and are typically caught as a non-target species when fishing for species like Onaga. Fishers usually stay away from the larger groupers (more than 6 lbs) because some were found to be toxic (ciguatera poisoning). However, smaller-sized fish are usually kept and prepared fried and in soups.



Semo

July 30 - August 27

Huliu 30 - Agosto 27, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Pacific Blue Marlin

Pacific Blue Marlin ▪ **båtto'** ▪ *Makaira mazara*

LIFE HISTORY INFORMATION: Size - up to >12 ft and 2,000 lbs. ▪ Life span - females up to 20 yrs, males up to 10 yrs. ▪ Diet - mostly tuna and other open water fishes. ▪ Found in tropical and subtropical waters throughout the Pacific. ▪ Females are larger than males and spawn between May and September.

FISHERY INFORMATION: Native peoples in Guam and the Mariana Islands used the flying proa (sakman) to fish offshore in pre-Spanish times. They used woven fibers as lines and, after hooking a marlin, would let it tire before bringing in on board.

LOCAL KNOWLEDGE: The Pacific Blue marlin, a prized, hard-fighting, sport fish, has long been a food source for local communities. Archeological digs from the pre-colonial period reveal marlin bones and hooks made from human bone.

Guam held the world record for a Pacific Blue Marlin at 1,153 pounds for 13 years, caught by Greg D. Perez in 1969. The actual carcass of the fish is stored at the Guam Museum and a replica is displayed at the Guam Airport.

CURRENT REGULATIONS: FEDERAL: A vessel using longline gear to fish for pelagic species in the U.S. exclusive economic zone around Guam or landing or transshipping longline catch in Guam must be registered to a valid Western Pacific general longline permit.

COUNCIL MANAGEMENT: Currently monitored as a pelagic management unit species.

STOCK STATUS:
Not overfished; not experiencing overfishing.



Marlin Chunks

INGREDIENTS

2 lbs marlin, cut into chunks
2 cups all-purpose flour
1 pouch Japanese furikake
¼ cup sesame seeds
salt and pepper, to taste
vegetable oil for frying

INSTRUCTIONS

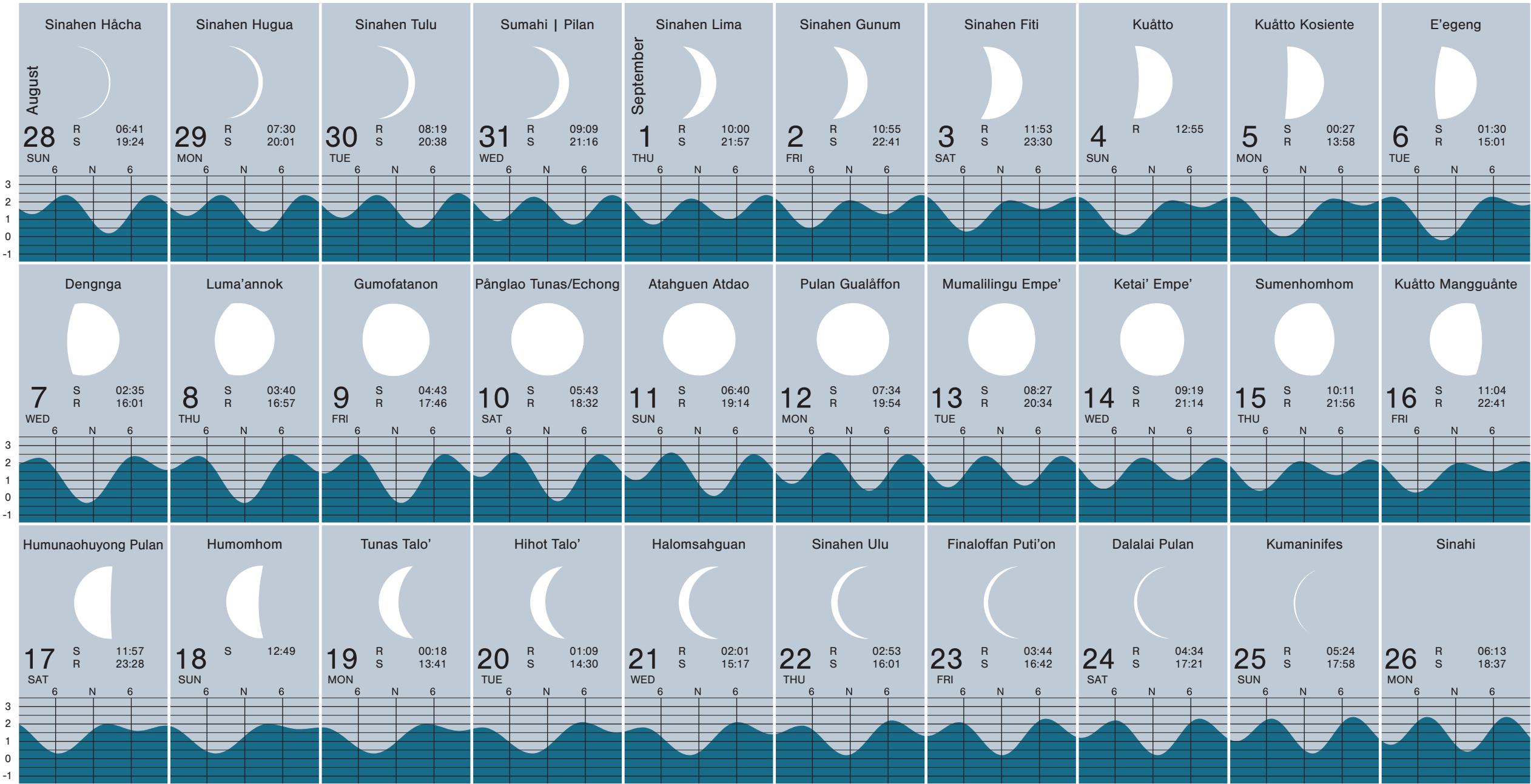
Season fish with salt and pepper. Mix flour, furikake and sesame seeds in a bowl. Roll fish in mixture until covered on all sides. Heat oil in a pan and deep-fry chunks until golden and crispy on the outside. Remove from oil and dry on paper towels.

Courtesy Matthew Orot



Tenhos

August 28 - September 26
Agosto 28 - Septiembre 26, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES

Bonita

Skipjack Tuna ▪ **bonita** ▪ *Katsuwonus pelamis*

LIFE HISTORY INFORMATION: Size - up to 4 ft and >70 lbs. ▪ Age range - 8-12 yrs. ▪ Spawn all year in tropical waters and seasonally in subtropical waters. ▪ Females produce between 100,000-2 million eggs each time they spawn. ▪ Once fertilized, the egg can hatch in ~1 day, depending on temperature. ▪ Diet - fish, crustaceans, cephalopods, mollusks and sometimes other skipjack tunas. ▪ Prey for large pelagic fishes such as billfish, sharks and other large tunas.

FISHERY INFORMATION: Caught using artificial barbless lures and, occasionally, live bait such as anchovies, herring or silversides that are mainly used to attract and hold a school close to the vessel.

LOCAL KNOWLEDGE: Common in the Western Pacific, a skipjack tuna was recently caught near a fish aggregating device off Guam that was tagged in the Sea of Japan ~15 months earlier.

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COUNCIL MANAGEMENT: Currently monitored as a pelagic management unit species.

STOCK STATUS:
Not overfished; not
experiencing overfishing.

Crispy Fried Bonita with Lemon Finadene'

INGREDIENTS

1-2 lbs tuna, cut into 2 to 3-in chunks
salt, to taste
vegetable oil for frying

1 cup fresh lemon juice
1 tbsp coarse salt (or more to taste)
½ cup cold water
1 small onion, thinly sliced and separated into rings
4 cloves garlic minced
2-6 jalapeños, thinly sliced

INSTRUCTIONS

Salt fish chunks. Heat oil in a pan and deep-fry fish until golden and crispy on the outside. Remove from oil and dry on paper towels. Serve with lemon finadene' (see below).

To make the lemon finadene', combine the lemon juice, salt and water in a non-reactive bowl. Whisk until the salt dissolves. Stir in remaining ingredients. This can be covered and refrigerated for several days. Makes 1½ cups.

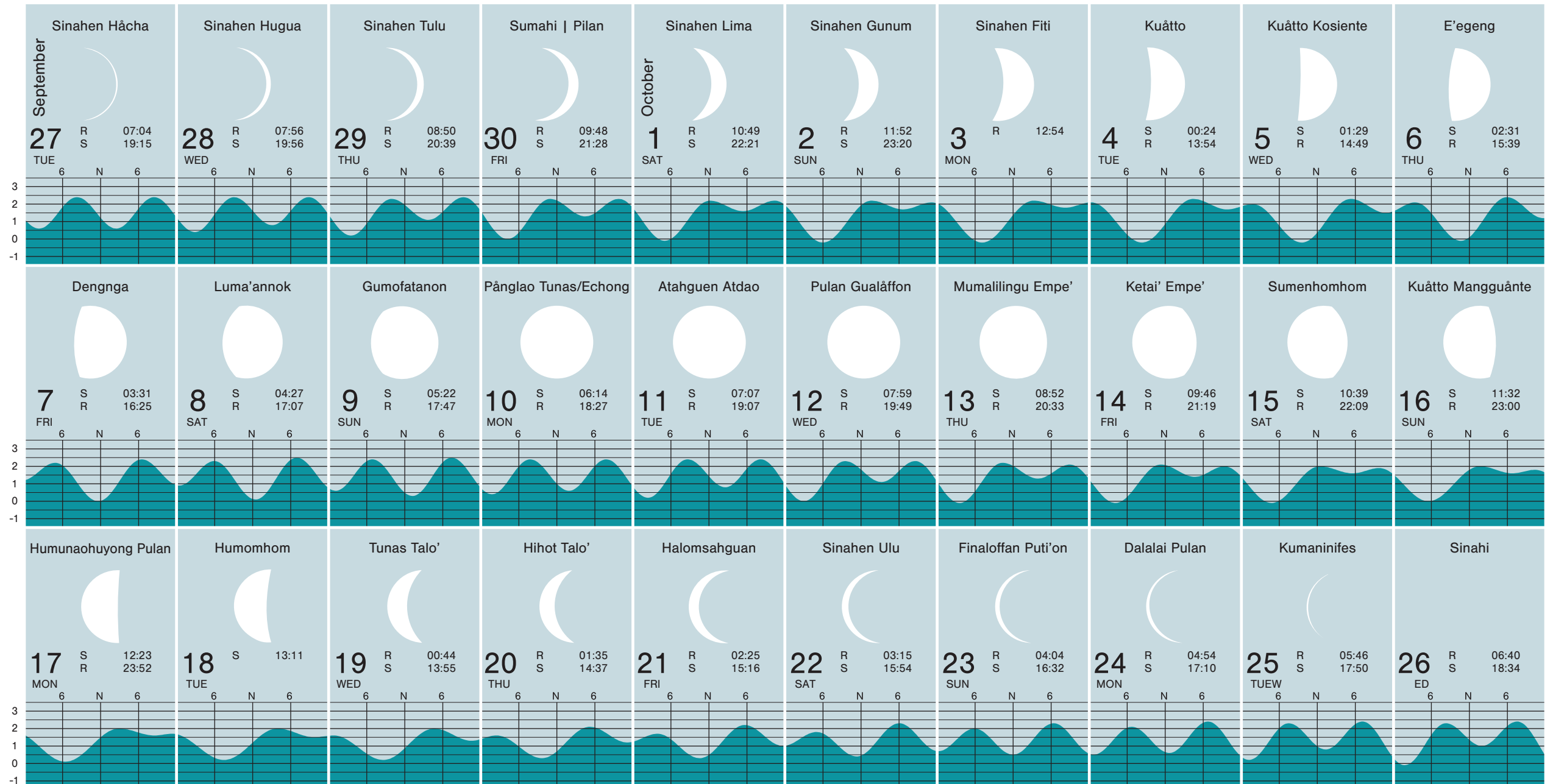
Courtesy Mary Camacho
source: food.com/recipe/3-finadene-sauces-guam-455051



Recipe Photo: cookpad.com/uk/recipes/10860872-deep-fried-tuna
Fish Photo: Felix Reyes

Lumamlam

September 27 - October 26
Septembre 27 - Oktubri 26, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Yellowfin Tuna

Yellowfin Tuna ▪ (no Chamorro name) ▪ *Thunnus albacares*

LIFE HISTORY INFORMATION: Size - up to 6 ft and >400 lbs. ▪ Ave lifespan - 6-7 yrs. ▪ Sexually mature at ~2.5 yrs, 58 lbs or 44 in. ▪ Inhabit warm, clear tropical and subtropical oceans around the world. ▪ Spawn April-Oct in Hawaii, with peak June-August. ▪ Females expel millions of eggs on a near-nightly basis. ▪ Diet - fish, squid and crustaceans. ▪ Prey for marine mammals, sharks and billfish.

FISHERY INFORMATION: Caught mostly trolling using artificial lures. Some fishermen troll slowly using small live bonitas as bait. Smaller fish can be brought in with handlines.

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COUNCIL MANAGEMENT: Currently monitored as a pelagic management unit species.

STOCK STATUS: Not overfished; not experiencing overfishing in the Western and Central Pacific Ocean.

Yellowfin Sashimi with Soy Finadene'

INGREDIENTS

1-2 lbs	tuna
	salt, to taste
½ cup	soy sauce
¼ cup	fresh lime or lemon
	sprinkle of salt, or to taste
½	small onion, minced
1	tube of wasabi

INSTRUCTIONS

Fillet fish into small, bite-sized pieces, avoiding the bloodlines. Mix remaining ingredients. Dip to enjoy.

Courtesy Audrey Toves

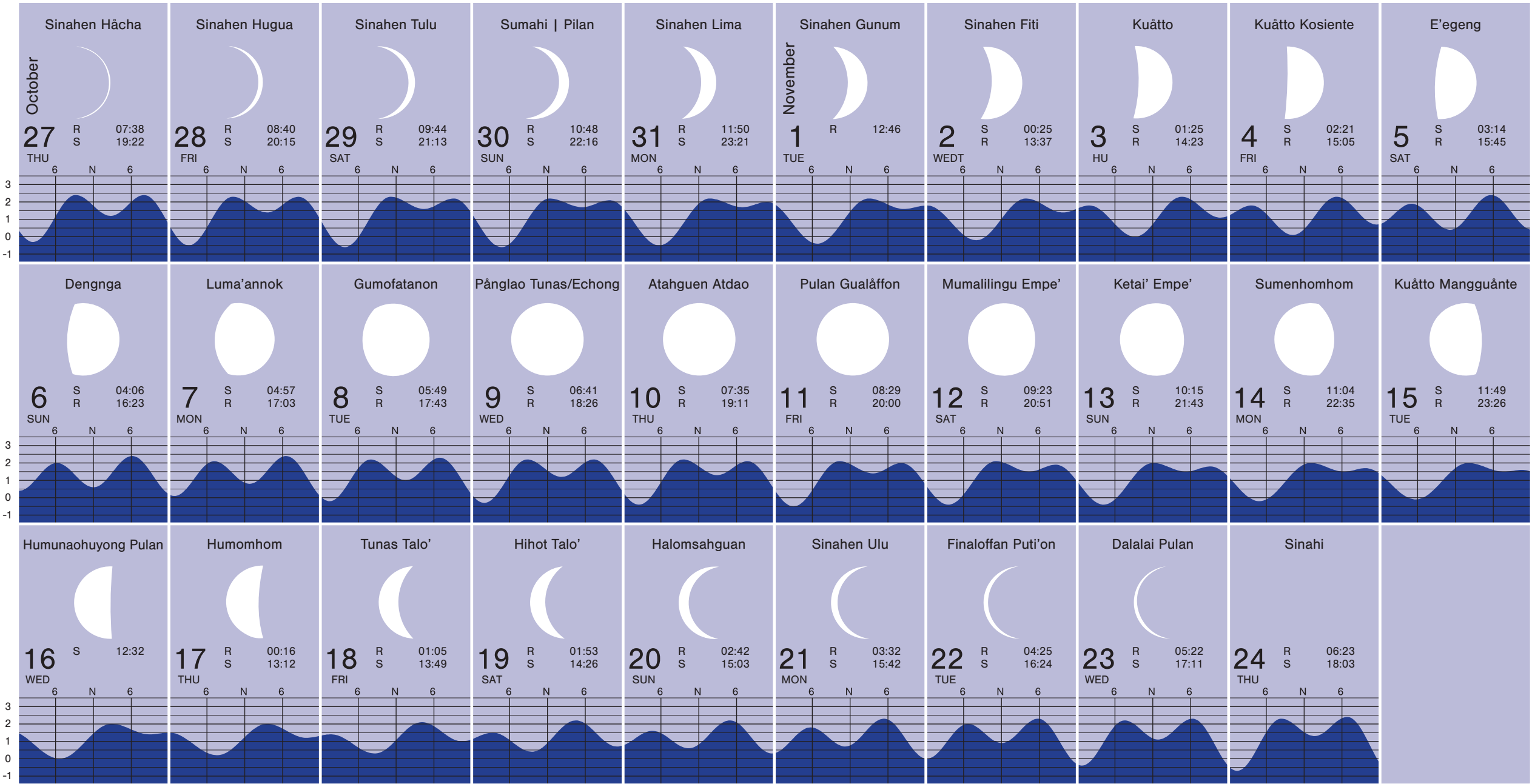


LOCAL KNOWLEDGE: Common off Guam year-round, the larger fish tend to appear during the summer months. Always putting up a strong fight, Yellowfin Tuna can usually be found in large schools. Fishermen look for white birds or boobies as a sign Yellowfin are present. Some also look for dolphins, since they are known to travel together. Having great eyesight, Yellowfin prefer lures trolled below the surface with some hardy fishermen preferring to trail the lure far behind the boat.



Fangualo'

October 27 - November 24
Oktubri 27 - Nubembre 24, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Mahimahi

Mahimahi ▪ **botague** ▪ *Coryphaena hippurus*

LIFE HISTORY INFORMATION: Size - up to 7 ft and 88 lbs. ▪ Life span - 5 yrs.
▪ Sexually mature at 4-5 months, 17-21 in. ▪ Thought to spawn every 2-3 days, releasing between 33,000-66,000 eggs in each spawning event. ▪ Congregate around large floating objects such as logs and other marine debris. ▪ Feed in surface waters during the day. ▪ Diet - mainly small pelagic larvae and fish, juvenile tuna, invertebrates, billfish, jacks and pompano.

FISHERY INFORMATION: Caught with rod and reel by trolling or baiting, and commonly found near floating objects or fish aggregating devices (FADs).

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COUNCIL MANAGEMENT: Currently monitored as a pelagic management unit species.

STOCK STATUS:
Not overfished; not experiencing overfishing.



Baked Mahimahi

INGREDIENTS

2 lbs fish, cut into 3-in pieces
salt and pepper, to taste
1 cup mayonnaise
½ cup Parmesan cheese
½ small onion, finely chopped

INSTRUCTIONS

Pat fish dry with paper towels. Season all sides with salt and pepper. Bake at 325°F for 10 minutes on each side. Combine mayonnaise and cheese and spread on cooked fish. Sprinkle with onions. Broil for 5-7 minutes, or until golden brown.

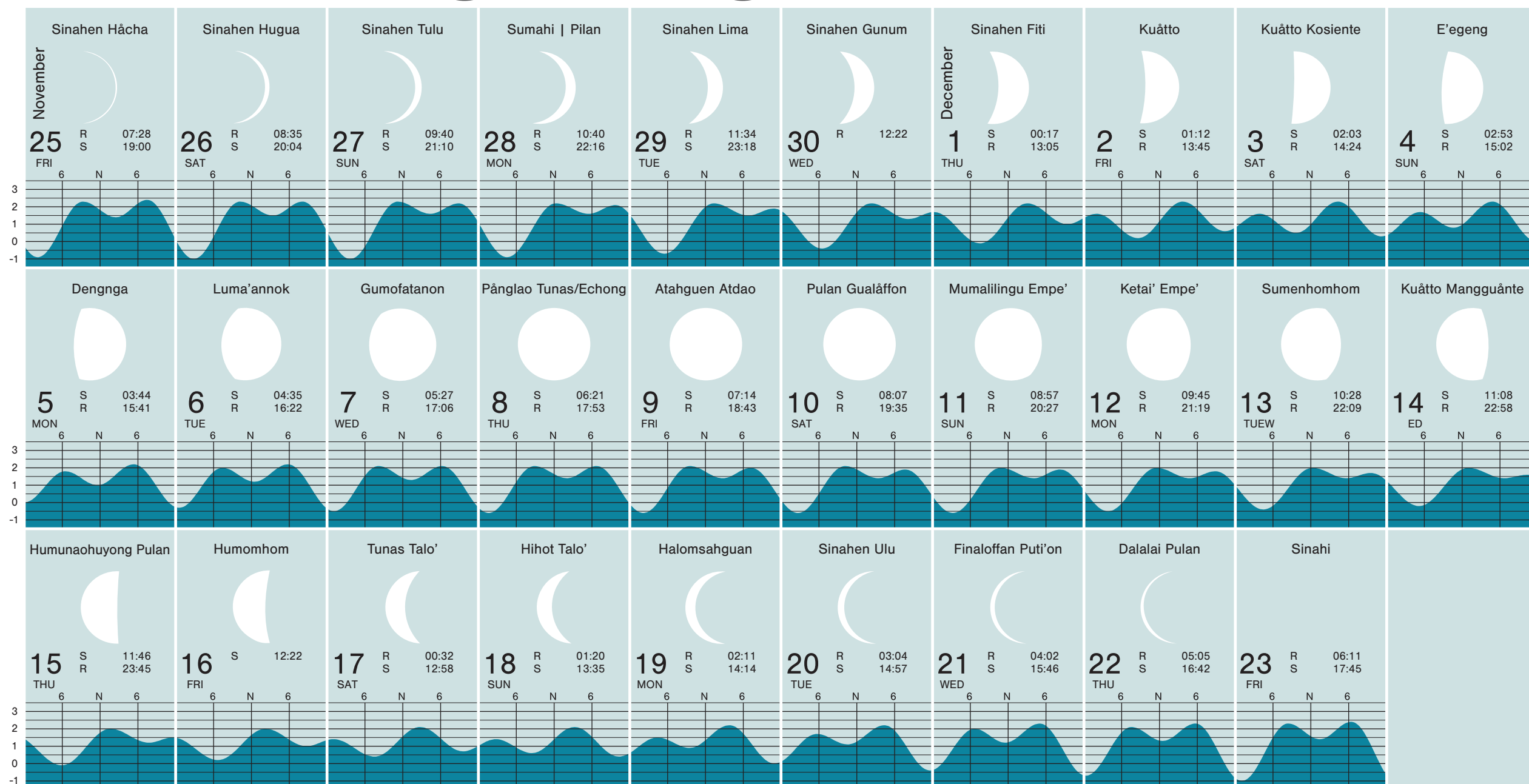
Courtesy Maggie Sabater



LOCAL KNOWLEDGE: Although they are caught sparingly year-round, small Mahimahi start to appear around November and in greater numbers at the beginning of the year, when water is rough. Dozens can be caught around FADs using bait. An excellent sportfish, Mahimahi tend to jump and “dance” on the surface. But this energy can be dangerous when they are brought on board the boat since they can be hard to control.

Sumongsong

November 25 - December 23
Nubembre 25 - Disembre 23, 2022



MOON-RELATED OBSERVATIONS AND ACTIVITIES



Western Pacific
Regional Fishery
Management Council

Wahoo

Wahoo ▪ **tosun** ▪ *Acanthocybium solandri*

LIFE HISTORY INFORMATION: Size - grow rapidly, up to 8 ft and 158 lbs. ▪ Sexually mature at 2.8 ft (males) and 3.3 ft (females), ~1 yr old. ▪ Spawn year-round and during summer in higher latitudes. ▪ Females expel millions of eggs to compensate for low survival rate. ▪ Diet - mainly fish like frigate mackerel, butterfish, porcupine fish and round herring. ▪ Scientists have theorized that a wahoo is able to eat fish larger than itself by using its sharp teeth to reduce large prey into bite-size pieces.

LOCAL KNOWLEDGE: Large Wahoo show up around April and May, and are present until January or February before tapering off. Usually caught close to nearshore ledges, boaters do not have to venture far out to sea to catch them. Wahoo are highly prized due to its firm, white meat, which is suitable for many types of preparation.

CURRENT REGULATIONS: FEDERAL: A vessel using longline gear to fish for pelagic species in the U.S. exclusive economic zone around Guam or landing or transshipping longline catch in Guam must be registered to a valid Western Pacific general longline permit.

COUNCIL MANAGEMENT: Currently monitored as a pelagic management unit species.

STOCK STATUS:

Not overfished; not experiencing overfishing.



Recipe Photo: Audrey Toves

Wahoo Sticks with Tartar Sauce

INGREDIENTS

1 lb	wahoo, skinned
1 cup	all-purpose flour
3	eggs, whisked
2 cups	Panko bread crumbs
¼ tsp	salt
¼ tsp	black pepper
2 cups	vegetable oil for frying
1 cup	mayonnaise
1 cup	minced pickles, about 2 small pickles diced
½	lemon, juiced
salt and pepper, to taste	

INSTRUCTIONS

1. Cut the fish into strips ~3 in-long strips, ½-in thick. Season with salt and pepper.
2. Place the flour, whisked eggs and Panko crumbs in three separate bowls. Set a baking sheet nearby. First, coat fish with flour, shaking off any excess. Then transfer fish to eggs. Coat well. Finally, move to Panko, pressing the bread crumbs onto the fish. Transfer coated fingers to the baking sheet.
3. Heat oil in large pan over medium heat. Add fish sticks in single layer, frying about 3 minutes on each side, or until browned. Remove from oil and dry on paper towels. Serve with tartar sauce (below).

For the tartar sauce, stir together the mayonnaise, pickles and lemon juice. Season with a pinch of salt and pepper, taste, and adjust as needed.

source: [simplyrecipes.com/recipes/crispy_panko_fish_sticks](https://www.simplyrecipes.com/recipes/crispy_panko_fish_sticks)

FISHERY INFORMATION:

Fishermen use artificial lures with a head that has holes in it called jets to create a stream of bubbles that attracts Wahoo.

Fishers must use wire leaders due to its sharp teeth.

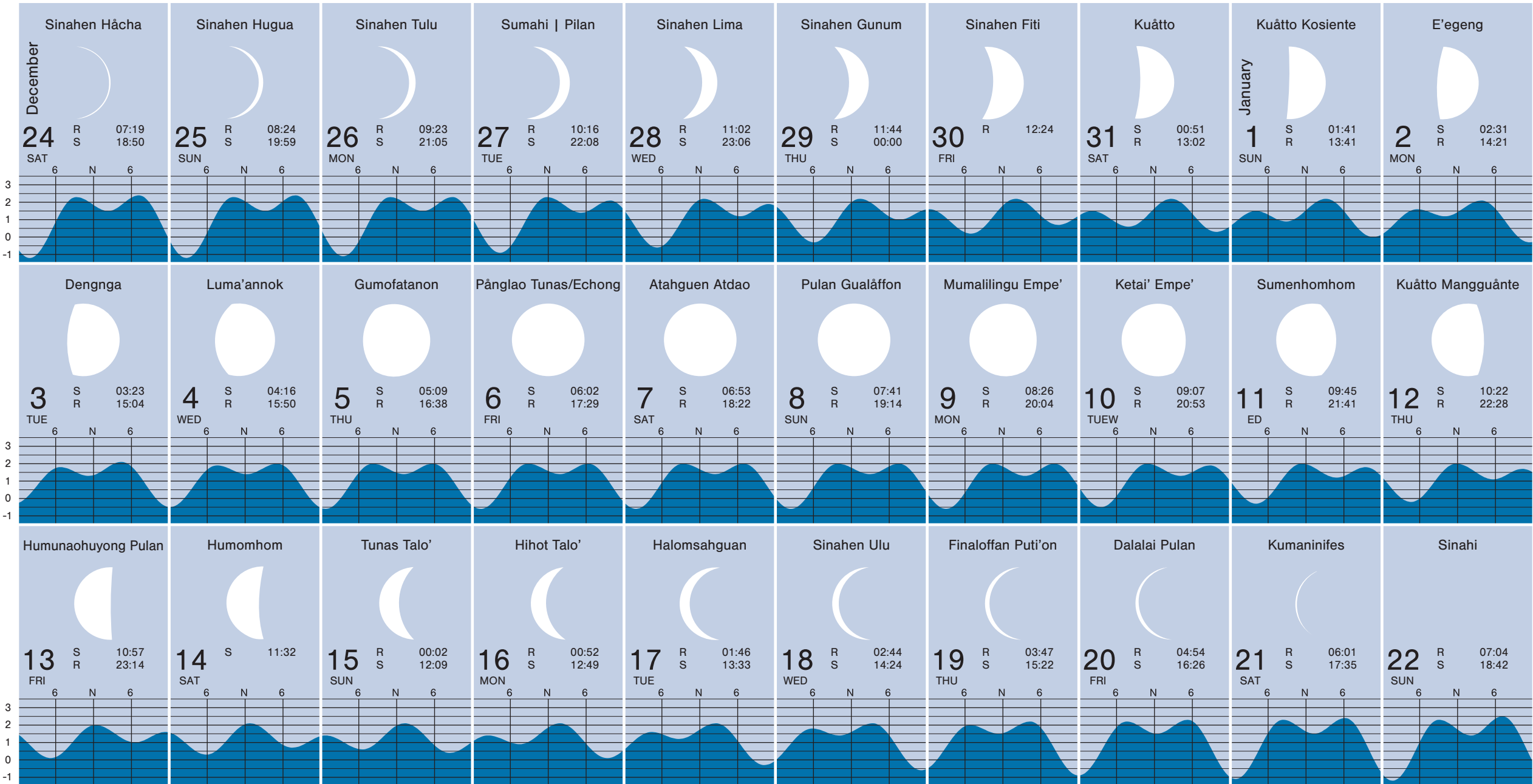


Fish Photo: Amber San Gil

Umayangan

December 24, 2022 - January 22, 2023

Disembre 24, 2022 - Ineru 22, 2023



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About This Calendar

The **Western Pacific Regional Fishery Management Council** has produced traditional lunar calendars for Guam since 2007. The intent is to raise awareness about traditional ecological knowledge and enhance community involvement in fishery management.

The 2022 Fanha'aniyan Pulan CHamoru (Chamorro Lunar Calendar) features 13 pelagic and bottomfish species managed under the Council's Fishery Ecosystem Plans. Each month gives common, Chamorro and scientific names for each species, along with life history and fishery information, current regulations, management and stock status, and a delicious recipe to enjoy. For the stock status, a stock is experiencing overfishing when more fish are being removed than is sustainable, and is overfished when the stock population size is too low and may not be able to recover.

The lunar months, moon phases, and traditional calendar months are given in Chamorro, the native language of the indigenous people of Guam. The moon phases in this calendar are for Hagåtña as calculated by the HM Nautical Almanac (astro.ukho.gov.uk/websurf). The tide charts with moon rise and set times are in Chamorro Time for Hagåtña and were provided by OceanFun Publishing, NZ.

A special Un Dangkulu Na Si Yu'us Ma'ase to calendar contributors including Council family members James Borja, Mike Fleming, Matthew Orot, Lino Tenorio, Audrey Toves; Council staff Joshua DeMello, Floyd Masga, Felix Reyes, Marlowe Sabater, Amy Vandehey; Leslie Aquino; Mary Camacho; Andre' Dueñas; George Moses, Nancy Reyes; Maggie Sabater; Adam, Amber and Dominick San Gil; Ray Santiago; Jimmy Snaer Badong; and Sabrina Snyder.

DATA SOURCES USED: anitalianinmykitchen.com, aquariumdomain.com, australian.museum, bioone.org, cookpad.com, dinnerthendessert.com, fishbase.mnhn.fr, fishider.org, food.com, inaturalist.org, masala.tv, shutterstock.com, simplyrecipes.com, thainationalparks.com, wpcouncil.org/annual-reports.

FRONT COVER: From the boat to the table.

For an electronic version of this calendar, go to wpcouncil.org/educational-resources/lunar-calendars.

About the Council

The **Western Pacific Regional Fishery Management Council** was established by Congress in 1976 to manage fisheries in the offshore waters surrounding Guam, the Commonwealth of the Northern Mariana Islands, American Samoa, Hawai'i and the U.S. Pacific Remote Island Areas. The fisheries in federal waters surrounding Guam are managed under the Mariana Archipelago and Pacific Pelagic Fishery Ecosystem Plans. Traditional knowledge and wide community involvement are integral parts of the ecosystem-based approach to fishery management.



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