



California Grunion Spawning Runs

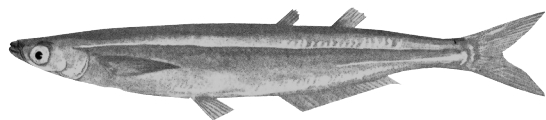
California Grunion Life History Information

The California grunion (*Leuresthes tenuis*) is a member of the New World silversides family, Atheriniopsidae, along with jacksmelt and topsmelt. Their usual range extends from Point Conception, California, to Point Abrejos, Baja California. Occasionally, they are found farther north, to Monterey Bay, California, and south to San Juanico Bay, Baja California. They inhabit the nearshore waters from the surf to a depth of 60 ft. Tagging studies indicate that they do not migrate.

Grunion are the object of a unique recreational fishery. These fish are famous for their remarkable spawning behavior, which evokes an "I don't believe it!" response from people when they see it or hear about it for the first time.

Grunion leave the water at night to spawn on beaches during the spring and summer months. For four consecutive nights, beginning on the nights of the full and new moons, spawning occurs after high tides and continues for several hours. As waves break on the beach, grunion swim as far up the slope as possible. The female arches her body and excavates the semi-fluid sand with her tail to create a nest. Twisting her body, she digs into the sand until half-buried with her head sticking out. She then deposits her eggs into the nest. Males curve around the female and release milt. The milt flows down the female's body until it reaches and fertilizes the eggs. As many as eight males may fertilize the eggs in a single nest. After spawning, the males immediately retreat toward the water while the female twists free and returns with the next wave. While spawning may only take 30 seconds, some fish remain stranded on the beach for several minutes.

Spawning occurs from March through August, and occasionally in February and September. Peak spawning occurs from late March to early June.



California grunion, *Leuresthes tenuis*
illustration by P. Johnson

Mature grunion may spawn during successive runs, with females spawning up to six times each season. Females lay between 1,600 and 3,600 eggs during one spawn, with larger females producing more eggs.

Eggs are deposited during the highest tides of the month and incubate in the sand during the lower tides, when they will not be disturbed by wave action. The eggs are kept moist by residual water in the sand. They hatch about 10 days later, during the next high tide series, when they are inundated with sea water and agitated by rising surf.

Most of the grunion seen on southern California beaches are between 5 and 6 in. long, with some as long as 7 in. Grunion mature and spawn at the end of their first year. An average one-year-old male is 4½ in. long while a female of the same age is slightly larger at 5 in. At the end of two years, males average 5½ in. and females around 5¾ in. long. By the end of three years, an average male is nearly 6 in. and a female is a little over 6¼ inches in length. Few live to be more than three years old.

Grunion feeding habits are not well known. They have no teeth, so they are presumed to feed on very small organisms. Shorebirds, isopods, flies, sand worms, and beetles eat grunion eggs, while humans, larger fish, and other animals prey upon grunion.

**Help Wildlife Officers
Put an End to Poaching**
If you witness poaching or polluting, call
888-334-CALTIP
(1-888-334-2258)



Alternate communication formats of this document are available upon request. If reasonable accommodation is needed, call CDFW at (707) 964-5026. The California Relay Service for the deaf or hearing-impaired can be utilized from TDD phones at 1 (800) 735-2929.



California Department of Fish
and Wildlife

California Grunion Information



CDFW photo

2023

California Grunion Facts and Expected Runs



The Grunion Fishery

Expected California Grunion Runs for 2023

Despite local concentrations, grunion are not abundant. The most critical problem facing the grunion resource is the loss of spawning habitat caused by beach erosion, harbor construction, and pollution.

By the 1920s, the fishery was showing unmistakable signs of depletion. Regulations passed in 1927 established a closed season for three months, from April through June. The fishery improved and in 1947 the closure was shortened to April through May. In 2022, the closed season was again extended from April through June to better protect grunion during their peak spawning period, and a daily bag and possession limit of 30 fish per person was established.

During the open season, a fishing license is required for persons 16 years and older to capture grunion. Grunion may be taken by sport fishermen using their hands only. No holes may be dug in the beach to entrap grunion. The daily bag and possession limit during the open season is currently 30 grunion per person.

While grunion spawn on many beaches in southern California, the Department of Fish and Wildlife does not recommend any particular beach because of changing safety conditions and local curfews. One of the best ways to find out which beaches have had recent runs is to call the state and county beach lifeguards who can often tell if spawning has taken place. There is a grunion program offered to the public at Cabrillo Beach in San Pedro on several nights of the season. Call (310) 548-7562 for details. Additional grunion information and volunteer programs may be found at: www.grunion.org.



For a current schedule, send a self-addressed, stamped envelope to:

GRUNION
California Department of Fish and Wildlife
3030 Old Ranch Parkway, Suite 400
Seal Beach, CA 90740

or download a schedule from the California Department of Fish and Wildlife website at

wildlife.ca.gov/Fishing/Ocean/Grunion

OPEN SEASON

DAY	DATE	TIME
Tu	3/7	9:40 p.m. - 11:40 p.m.
We	3/8	10:00 p.m. - Midnight
Th	3/9	10:20 p.m. - 12:20 a.m.
Fr	3/10	10:45 p.m. - 12:45 a.m.
Tu	3/21	10:15 p.m. - 12:15 a.m.
We	3/22	10:45 p.m. - 12:45 a.m.
Th	3/23	11:15 p.m. - 1:15 a.m.
Fr	3/24	11:50 p.m. - 1:50 a.m.
Mo	7/3	9:40 p.m. - 11:40 p.m.
Tu	7/4	10:30 p.m. - 12:30 a.m.
We	7/5	11:15 p.m. - 1:15 a.m.
Th	7/6	12:10 a.m. - 2:10 a.m.*
Mo	7/17	9:35 p.m. - 11:35 p.m.
Tu	7/18	10:10 p.m. - 12:10 a.m.
We	7/19	10:40 p.m. - 12:40 a.m.
Th	7/20	11:15 p.m. - 1:15 a.m.
Tu	8/1	9:35 p.m. - 11:35 p.m.
We	8/2	10:20 p.m. - 12:20 a.m.
Th	8/3	11:10 p.m. - 1:10 a.m.
Fr	8/4	Midnight - 2:00 a.m.*
We	8/16	9:55 p.m. - 11:55 p.m.
Th	8/17	10:25 p.m. - 12:25 a.m.
Fr	8/18	10:55 p.m. - 12:55 a.m.
Sa	8/19	11:30 p.m. - 1:30 a.m.

*NOTE: Where the forecast run starts at or after midnight, the date of the previous evening is shown.

CLOSED SEASON: APRIL through JUNE OBSERVATION ONLY

DAY	DATE	TIME
Th	4/6	10:10 p.m. - 12:10 a.m.
Fr	4/7	10:35 p.m. - 12:35 a.m.
Sa	4/8	11:05 p.m. - 1:05 a.m.
Su	4/9	11:40 p.m. - 1:40 a.m.
Th	4/20	10:05 p.m. - 12:05 a.m.
Fr	4/21	10:35 p.m. - 12:35 a.m.
Sa	4/22	11:05 p.m. - 1:05 a.m.
Su	4/23	11:40 p.m. - 1:40 a.m.
Fr	5/5	9:30 p.m. - 11:30 p.m.
Sa	5/6	10:05 p.m. - 12:05 a.m.
Su	5/7	10:40 p.m. - 12:40 a.m.
Mo	5/8	11:20 p.m. - 1:20 a.m.
Fr	5/19	9:30 p.m. - 11:30 p.m.
Sa	5/20	10:00 p.m. - Midnight
Su	5/21	10:35 p.m. - 12:35 a.m.
Mo	5/22	11:10 p.m. - 1:10 a.m.
Su	6/4	9:45 p.m. - 11:45 p.m.
Mo	6/5	10:30 p.m. - 12:30 a.m.
Tu	6/6	11:20 p.m. - 1:20 a.m.
We	6/7	12:15 a.m. - 2:15 a.m.*
Su	6/18	9:45 p.m. - 11:45 p.m.
Mo	6/19	10:20 p.m. - 12:20 a.m.
Tu	6/20	10:55 p.m. - 12:55 a.m.
We	6/21	11:35 p.m. - 1:35 a.m.

Regarding This Schedule

Times **through March 10 are Pacific Standard Time.** Thereafter, times are Pacific Daylight Savings Time.

The times given for each date reflect the **probable** two-hour interval during which a spawning run may occur. The second hour is usually better. The best runs normally occur on the second and third nights of a four-night period.

This schedule predicts grunion runs at Cabrillo Beach near the Los Angeles Harbor entrance. The timing of the

runs varies at different places along the coast: San Diego runs occur about 5 minutes earlier and Santa Barbara runs occur about 25 minutes later than the times provided here.

REMINDER: During the open season, a California fishing license is required for persons **16 years and older.** Grunion may be taken by hand only. No holes may be dug in the beach to entrap them. The daily bag and total possession limit is 30 fish per person.