Finding Hal

https://findinghal.org/

Calling all divers!

We need your help to **find HAL**, endangered white abalone in the genus "Haliotis" in and around the Southern California Bight (Point Conception to Ensenada).

White abalone (*Haliotis sorenseni*) are on the brink of extinction, **your** observations could contribute to the conservation of this endangered species.

Use our <u>ID cards</u> to see different abalone species, and help us positively ID white abalone.

Going diving? Be sure to visit our <u>Resources</u> page for more SCUBA-related abalone ID and best practices. Want to learn more about these marine snails? Visit our <u>About</u> page for more information, or visit NOAA Fisheries to find out <u>why you should care about white abalone</u>.

Identifying HAL

Please enjoy these unique abalone ID cards created by Oriana Poindexter. Each card has a front and back, and can be downloaded to your device as a PDF.

To aid in the identification of HAL, please see these shell images provided by the Santa Barbara Museum of Natural History



Black Abalone

Haliotis cracherdoii

PDF

Download

Flat Abalone

The flat abalone is one of the least-seen abalone on the Pacific West Coast. Aptly named, this species uses its uniquely flattened profile to hide deep in crevices or

The shell exterior is variable, red with patterning in blue, green and white. The interior has light pink iridesence and lacks a muscle scar. The four to eight open respiratory pores are oval and slightly raised above the shell surface. Their epipodium has distinctly raised papillae, which are bumpy to the touch.

POPULATION STATUS
Declined 1.4

underneath boulders.

MAXIMUM SIZE
Up to 7 inches 2.3

LIFESPAN

DEPTH RANGE Subtidal to 70 feet 2

Newport, OR to San Benito
Island, Baja California, MX. 3
green and white mottling
or spiral streaks.3

PREFERRED HABITAT

Subtidal in northern part of range, to 70 feet in southern portion. Found deep in crevices, below boulders. ²

Haliotis walallensis





BODY DESCRIPTION

Body mottled yellow & brown. Epipodium alternating yellow & brown, lacelike. Tentacles dark green. To the touch, epipodium is bumpy, covered in raised papillae. 3.5

HARVEST INFORMATION

Recreational & commercial wild harvest is prohibited.

Flat Abalone

Haliotis walallensis

PDF

Download

Green Abalone

Green abalone are the species most commonly encountered in Southern CA. They are most often found from the low intertidal to 30 ft deep, in or near rocky

They can be identified by their green tentacles and mottled cream and brown epipodial fringes. The shell exterior has spiral ribbing but is often encrusted, with bright blue-green iridesence inside. The 5 to 7 open respiratory pores are round and slightly raised.

POPULATION STATUS Declined

MAXIMUM SIZE Up to 10 inches ⁸

LIFESPAN 30 years or more 4 DEPTH RANGE 0 to 60 feet 3

GEOGRAPHIC RANGE Point Conception, CA to Bahia de Magdalena, MX ⁴

SHELL DESCRIPTION Olive green to reddish-brown. Low spiral ribbing.²

PREFERRED HABITAT Rock crevices, under rocks, other cryptic spaces ⁴ Haliotis fulgens





BODY DESCRIPTION

Body, tentacles green. Epipodium mottled cream $\mbox{\^a}$ brown. 3

HARVEST INFORMATION

Recreational & commercial wild harvest is prohibited.

Green Abalone

Haliotis fulgens

PDF

Download

Pink Abalone

Pink abalone are identified by their highly corrugated shell surface and sharply scalloped edge. Their bodies are black with an intricately mottled, lace-like black and white epipodium.

They sport 2 to 4 highly elevated open respiratory pores. Pink abalone are most common from about 20 to 70 feet deep, on rocky reefs in areas with giant kelp

POPULATION STATUS

MAXIMUM SIZE Up to 9.5 inches ³

LIFESPAN

DEPTH RANGE 20 - 180 feet ³

Up to 30 years 1 GEOGRAPHIC RANGE

SHELL DESCRIPTION Green to reddish brown. Highly corrugated texture.²

Point Conception, CA to Bahia Tortuga, MX ² PREFERRED HABITAT

Rocky reefs in areas with giant kelp beds.³

Haliotis corrugata



BODY DESCRIPTION

Body & tentacles black, epipodium black and white, mottled and lace-like.²

HARVEST INFORMATION
Recreational & commercial wild harvest is prohibited.

Pink Abalone

Haliotis corrugata

Pinto Abalone

Formerly considered two separate species, the pinto abalone is now accepted as one species with two visually distinctive morphological types. ¹

Northern type has a lumpy shell surface, with colors including red, green, orange, white. Apex is elevated and shell is elongated in shape, with three to six open respiratory pores.

Southern type has spiral ribbing on the shell and is more spherical in shape, with colors including brown, pink and blue and four to seven open respiratory pores.

POPULATION STATUS

MAXIMUM SIZE Up to 7 inches ³

15 to 20 years ⁵

DEPTH RANGE Intertidal to 120 feet ⁶ SHELL DESCRIPTION

GEOGRAPHIC RANGE

Salisbury Saund, Alaska to
Bahia Tortugas, Baja CA, MX.
Types mix in Central CA. 5

Types mix in Central CA. 5

Intertidal and cryptic in the northern part of their range. More exposed and to depths of 100 feet in southerly areas. ⁶

Haliotis kamtschatkana



BODY DESCRIPTION

Southern type mattled beige-brown body, yellowish tentacl Northern type mottled greenish-brown body and tentacles. Bright yellow visible through respiratory pores.³

HARVEST INFORMATION

Recreational & commercial wild harvest is prohibited. 6

Pinto Abalone

Haliotis kamtschatkana

Red Abalone

This is the world's largest abalone species. Red abalone are identified by their red-rimmed shells and black bodies. The shell surface is lumpy and generally encrusted, while the interior has colorful iridesence and a prominent muscle scar.

The three to five open respiratory pores are oval and slightly raised above the shell surface. They can be found from the intertidal zone down to rocky reefs 100

POPULATION STATUS

MAXIMUM SIZE Up to 12 inches

Declined LIFESPAN

DEPTH RANGE Up to 30 years 1 Intertidal to 100 feet 1

GEOGRAPHIC RANGE Sunset Bay, OR to Bahia Tortugas, MX including offshore islands.3

SHELL COLORS

Brick red, sometimes banded green or pink. Lumpy texture.2

PREFERRED HABITAT

Intertidal in the northern part of their range, or rocky reefs, boulders, and kelp beds in southerly areas.1

Haliotis rufescens





BODY COLORS

Body, epipodium and tentacles are black, occasionally with white marble-like streaks.³

HARVEST INFORMATION

Wild harvest is prohibited. Recreational fishing is closed through April 2026. Commercial fishing was closed in 1997.4 Red abalone are sustainably farmed in California.

Red Abalone

Haliotis rufescens

White Abalone

White abalone can be identified by their beige, lace-like tentacles and epipodium, and 3 to 5 open respiratory pores. The shells are reddish, lightweight with pearly interiors and no muscle scar.

In the wild, white abalone are very well camoflauged by encrusting organisms and algae, making their tentacles, epipodium, and open pores the most reliable characteristics for identification.

POPULATION STATUS Endangered

MAXIMUM SIZE Up to 9 inches

LIFESPAN

30 to 40 years 1,10

GEOGRAPHIC RANGE

Point Conception, CA to Punta Abreojos, Baja California, MX. 6

DEPTH RANGE SHELL COLORS

Variable when encrusted. Reddish brown with spiral ribbing if cleaned. 4

Require rocky substrate. Live on rocky reefs, solitary outcrops in kelp forests, near sand-rock interface where drift algae accumulates. ^{3, 6}

Haliotis sorenseni





BODY COLORS

Body yellow, orange traces. Tentacles & epipodium beige, lace-like.

HARVEST INFORMATION

Recreational & commercial wild harvest is prohibited. 5

White Abalone

Haliotis sorenseni

PDF

Download Source: Oriana Poindexter

Glossary of key terms

Already gone diving?

Please submit your abalone field observation here: **Submit an observation**

Wanted alive!

* Required

Please share information on your recent white abalone sighting. For more information, visit findinghal.org

Information submitted here will *not* be shared publicly john.doe@gmail.com Switch account

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Your email is not part of your response.

Name*	
Your answer	
Affiliation	
Your answer	
If you would li	ike to be contacted via phone or a different email address, please leave
your informati	on here
Your answer	
	Next

Wanted alive!

john.doe@noaa.gov Switch account

The name and photo associated with your Google account will be recorded when you upload files and submit this form. Your email is not part of your response.

Clear form

* Required

Media upload and dive site information

In this section please provide any and all details and related media. Please note that media will only be used to identify white abalone and will *not* be shared publicly.

Please use this form to upload any and all images and video files from the field Note: Please use this form for single individuals. For multiple sightings on the same dive, please use the duplicate file uploader below.

Add file

A white abalone seen in Southern California. Note the cream colored tentacles and respiratory pores. Easily confused with other abalone, white abalone are found at greater depths with different external features

Did you upload media? If not, please tell us what you saw*
We'd like to send divers to verify your observation. Please describe: mantle color, tentacle color, habitat, etc. to the best of your ability

Your answer

Date of encounter*

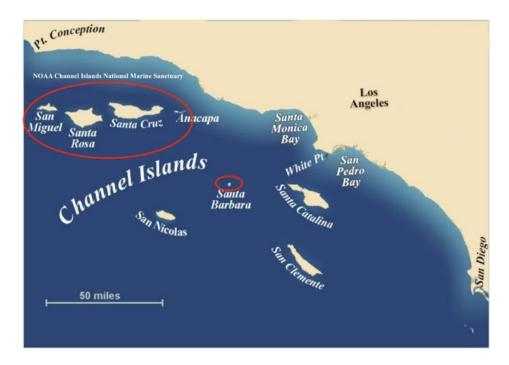
Please use the date picker or manually enter the date of your dive or sighting (Month, Day, Year)

Date

Were you the photographer? (Y/N) If not, please provide name and contact information* E.g. "Yes" or "No; John Smith <u>j.smith@gmail.com</u>"

Your answer

A map of the Southern California Bight, with CINMS highlighted in red. Please select the general region that you dove within.



General location of white abalone

Choose

Please provide the name of the dive site (if applicable)

Your answer

If available, please provide GPS coordinates.

Approximate coordinates in (decimal or degrees) are very helpful (e.g....)

Your answer

Please provide an approximate depth (meters or feet) of sighting*

Choose

Depth*

Your answer

Please provide the name of the vessel or platform you dove off of.*

E.g. "Peace", " "Private"	Spectre", '	'Raptor". If	you dove	off of a priv	ate vessel p	olease si	mply write
Your answer							

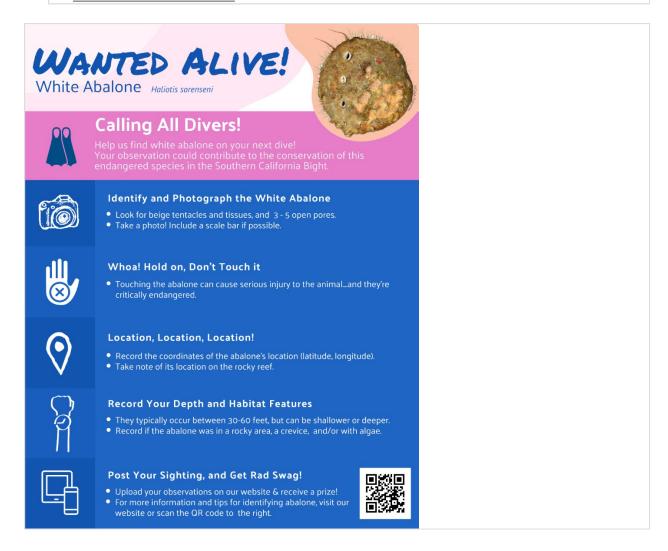
Note: No information will be shared publicly; media will only be used to identify white abalone.

A wild white abalone (*H. sorenseni*) seen in the field in its preferred habitat. Source: Athena Maguire/CDFW

As part of the *Wanted Alive! White Abalone* campaign, Finding Hal sponsored and funded by the <u>National Marine Sanctuary Foundation</u>, implemented through <u>Ecoquants</u>. Partners involved with the campaign (but not hosting this web portal) include the <u>NOAA Channel Islands National Marine Sanctuary</u> and <u>NOAA Fisheries Office of Protected Resources</u>.

Resources

Wanted Alive Poster



Glossary

Key terminology

Abalone: Abalone is a common name for any of a group of small to very large marine gastropod mollusks in the family Haliotidae

Gastropod: "gastro" = stomach, "pod" = foot; gastropods (commonly known as snails and slugs) belong to a large taxonomic class of invertebrates within the phylum Molluska called Gastropoda.

Abalone anatomy

Oral: relating to the mouth (referring to the "mouth end")

Aboral: relating to/denoting the side or end that is furthest from the mouth

Tentacle: a slender, flexible limb or appendage in an animal, especially around the mouth of an invertebrate, used for grasping or moving about, or bearing sense organs.

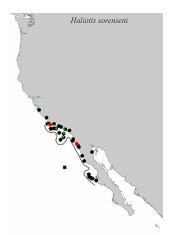
Epipodial: "epi" = around, "podial" = relating to the foot; one of the lateral lobes of the foot of an abalone

Respiratory pore: aka "breathing pore", an opening of the external body anatomy (visible in the shell of an abalone) which draws in water, allowing the organism to breath

Locating Hal

Click on the dropdown below to see a map of known white abalone sightings, and the distribution of abalone species in the North Pacific

Known sightings of white abalone



Known sightings of white abalone in California and Baja California. Circles indicate specimen records, squares indicate literature record, questions marks show a dubious record. Dots in red are new records not published in Geiger (2000), dots in green are from the Australian Museum, Sydney. Source: Daniel Geiger

About Hal

White abalone (*Haliotus sorenseni*) belongs to a group of plant-eating marine snails that were once common in California. They once numbered in the

millions off the California coast, but now they are endangered. In 2001 white abalone became the first ever marine invertebrate to be Listed as endangered under the Endangered Species Act. White abalone are one of NOAA Fisheries' Species in the Spotlight—an initiative that includes animals considered most at risk for extinction and prioritizes their recovery efforts. Source: NOAA Fisheries

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Questions or comments about this site? Please reach out to julie.bursek@noaa.gov or pike.spector@noaa.gov

Source: Kat Magaña/CDFW

https://wxcoder.org/login/?next=/home/