



STOP STOP AQUATIC INVADERS ON OUR COAST!



¡DETENGA EL TRANSPORTE DE ESPECIES INVASORAS AGUÁTICAS EN NUESTRAS COSTAS!



WHY STOP AQUATIC INVASIVE SPECIES (AIS)?

AIS include aquatic plants, animals, and bacteria brought from their native regions to new harbors and natural habitats. They can consume or outcompete native species or harm human health. Some foul vessels and coastal structures. Others damage shorelines. Eradication can cost millions of dollars.

WHO IS AFFECTED BY COASTAL AIS?

- Recreational and Fishing Boat Owners
- Boating, Shipping, Fishing, Aquaculture and Seafood Businesses
- Ports, Harbors, Marinas and Yacht Clubs
- Seafood Consumers
- Native Fish, Birds, Seaweeds, Shellfish and Other Aquatic Life

HOW DO RECREATIONAL AND FISHING BOATS CARRY AIS?

AIS can be carried to new regions on hulls, anchors, cooling intakes, bilge water, and other parts in contact with seawater. Fouled nets and unused live bait dumped into the water can also introduce invaders.

WHICH HULL FOULING AIS CAN AFFECT YOU?

- Invasive tubeworms** (Hydroids elegans, H. gracilis, H. dimorphus):
 - Build tubes on hulls of boats, slowing them or increasing fuel use
 - Hull must be cleaned often or tubes become strongly attached and require hard scrubbing that may chip paint
- Striped Barnacle** (Balanus amphitrite):
 - Heavy fouling slows boat speed by 40% or increases fuel use
 - Provides a habitat for other AIS
- Australasian Isopod** (Sphaeroma quoyanum):
 - Burrows into and erodes shorelines
- European Green Crab** (Carcinus maenas):
 - Robs native birds and crabs of their food
 - Devours cultured oysters, mussels and native clams
 - Threatens multi-million dollar fishery and aquaculture businesses
- Dryozoa** (Waterpiper subtorquata):
 - Less sensitive to copper than many fouling organisms
 - Provides surface for more-sensitive species to grow on
- Club Tunicate** (Styela clava):
 - Competes with cultured shellfish for space and food
 - Shocking tunicate-fouled oysters can harm humans
- Asian kelp, Japanese seaweed, Wakame** (Undaria pinnatifida):
 - Competes with native species for space and food
 - Weights down and increases drag on aquaculture lines and floats

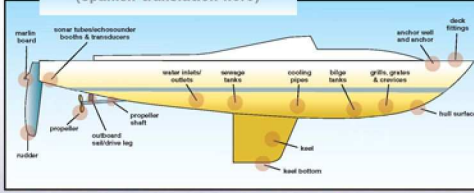


WHAT CAN YOU DO TO PREVENT AIS?

- ✓ If you use copper-based antifouling paint, replace it when copper is depleted.
- ✓ Non-toxic boat bottom coatings are safer for aquatic life, but frequent cleaning is needed. Please visit <http://seagrant.ucdavis.edu> for more information.
- ✓ Clean the hull of your boat, underwater running gear, and internal seawater systems before traveling beyond your home region, especially if you will visit major ports, international waters, islands, or events with boats from many places.
- ✓ Clean them all again before moving to another region or returning home.
- ✓ If your boat is heavily fouled after each trip, haul it for cleaning upon arrival and contain the fouling growth.
- ✓ Drain livebait, bait tanks, and bilge water before traveling and before returning.
- ✓ If you trailer your boat, please follow the guidelines at the Stop Aquatic Hitchhikers website: <http://www.protectyourwaters.net>

Areas on your boat to target

(spanish translation here)



¿QUÉ SE PUEDE A HACER PARA PREVENIR LAS EIA?

- ✓ Si usa pintura anticorrosiva de cobre, cámbiela cuando el cobre se agote.
- ✓ Los revestimientos no tóxicos son más seguros para la vida marina pero se tiene que limpiar el casco con más frecuencia. Visite <http://seagrant.ucdavis.edu> para recibir más información.
- ✓ Limpie el casco de su bote, otras partes en contacto con el agua y sistemas internos de agua antes de viajar fuera de su región, especialmente si visitará puertos, aguas internacionales, islas o eventos con otros botes de varios lugares.
- ✓ Limpie todo de nuevo antes de regresar a su región o ir a otra.
- ✓ Si el casco de su bote tiene mucha adherencia después de un viaje, séquelo del agua a su llegada para limpiarlo y borrar las adherencias en la manera apropiada.
- ✓ Vacíe su tanque de carnada y agua de sentina antes de viajar y antes de regresar a su región.
- ✓ Si remolca su bote, siga las instrucciones que hallará en el sitio web de Stop Aquatic Hitchhikers <http://www.protectyourwaters.net>

In California report AIS found on your boat or in your marina to National AIS Hotline: 1-877-STOP-ANS (1-877-786-7267) (855) 894-2845 <http://seagrant.ucdavis.edu>

In Baja California report AIS found on your boat or in your marina to Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO): 01 (55) 5528-914

En California favor de reportar las EIA encontradas en su bote o en su marina a la línea gratuita directa de National Aquatic Nuisance Species: 1-877-STOP-ANS (1-877-786-7267)

En Baja California favor de reportar las EIA encontradas en su bote o en su marina a la Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO): 01-55-5528-9105 (855) 894-2845 <http://seagrant.ucdavis.edu>

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Pacific States Marine Fisheries Commission
Renewable Resources Extension Act
United States Fish and Wildlife Service

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Translated by Cesar Alvarez

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