



Sphaeroma quoyanum

New Zealand Isopod, Australian Isopod

Threat scores

1. Ecological impact
 - Increases erosion of soft banks and wetlands and contribute to levee collapses. May increase turbidity in surrounding waters. In San Francisco Bay, 90 cm of riverbank washed away in 9 mos, a 250% increase over normal erosion rates. The U.S. Army Corps of Engineers considers the burrowing isopod a significant threat to salt marsh restoration. Loss of wetlands reduces carbon storage and exacerbates global warming. Dock boring releases polystyrene (known neurotoxin and potential carcinogen) particles into surrounding waters causing pollution.
 - Probably also introduced a smaller isopod - *Iais californicus* - that lives attached to *S. quoyanum*'s underside.
2. Invasive potential
 - Likely to continue to expand its range from current invaded areas, limited only by temperature (freezing waters). May travel to nearby bays on floating debris. Also potential for additional transport on boat hulls.
3. Geographic extent
 - Locally pervasive
4. Management difficulty
 - Research into sloping banks of salt marshes to reduce appeal to isopods.

Geography and Habitat

1. Origin: New Zealand, Australia and Tasmania
2. First introduction: 1904
3. 1st verified in San Francisco Bay in 1904, likely introduced a few years earlier in the wooden hulls of transoceanic gold rush ships coming in from New Zealand, Australia and Tasmania (the isopod's native range).
4. Marine, fouling communities, coastland, wetlands

Invasion Pathways

1. Hull/Surface Fouling
 - Accidental known
 - Cause- Hulls of gold rush ships (circa 1900). Common ship-fouling
 - Introduced from Australasia on ship hulls during the California gold rush, it can now be found from San Diego, California to Coos Bay, Oregon.

Non native locations

1. 57- OR, WA, Vancouver Coast and Shelf
2. 58- Northern California
3. 59- Southern California Bight

Sources

1. Molnar, Jennifer, et al. 2008. "Assessing the global threat of invasive species to marine biodiversity." *Frontiers in Ecology and the Environment*. 6 (9), pp. 485-492.
2. <http://conserveonline.org/workspaces/global.invasive.assessment>