CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REPORT ON INTEGRATED ECOSYSTEM ASSESSMENT REPORT

The California Department of Fish and Wildlife (Department) has reviewed the California Current Integrated Ecosystem Assessment (CCIEA) 2019 Annual State of the California Current Ecosystem Report (Agenda Item E.1.a, IEA Team Report 1). The Department thanks the CCIEA for their comprehensive review of the California Current Ecosystem and appreciates the introduction of a new indicator in Section 3.4, the occurrence of harmful algal blooms (HABs).

Unfortunately, the CCIEA only reviewed HAB data from Washington and concluded that "in 2018, the low levels of domoic acid detected in Washington razor clams and Dungeness crabs did not trigger fishery closures at any of the sites." The report also stated in section 7.1, Summary of Recent Conditions that there was "...no evidence of recent HABs off Washington..."

These conclusions could lead to an assumption that there were no fishery impacts of HABs within the California Current Ecosystem, which is incorrect. In California, *Pseudo-nitzschia* blooms have led to domoic acid presence and fishery closures in the commercial Dungeness Crab, Rock Crab, and Spiny Lobster fisheries and the recreational Dungeness Crab and razor clam fisheries. Some of these closures remain in effect.

The commercial Rock Crab fishery north of Bodega Head, Sonoma County, was closed due to domoic acid beginning in 2015 and continuing into 2018. It reopened in stages from south to north (Jan 16 – Bodega Head to Salt Point, Mar 29 – Salt Point to Sonoma/Mendocino county line, April 20 –Sonoma/Mendocino county line to Mendocino/Humboldt county line). This fishery remains closed from Humboldt County north to the California/Oregon border. The 2018/19 commercial Dungeness Crab fishery was delayed approximately one month between Bodega Head and the Sonoma/Mendocino County line and approximately 10 days between Patrick's Point, Humboldt County, and the California/Oregon border. The 2018/19 recreational Dungeness Crab fishery was delayed approximately 2.5 months between Patrick's Point and the California/Oregon border. The 2018/19 commercial Spiny Lobster fishery was closed for one month around Santa Cruz and Anacapa Islands, Santa Barbara County. Finally, the recreational razor clam fishery remains closed since April 2016 in Humboldt and Del Norte counties.

Information on California fishery closures due to health advisories is available on the internet at: https://www.wildlife.ca.gov/fishing/ocean/health-advisories. This site includes information on current closures, health advisories, and links to other

states' information (Figure 1). Each of these fishery closures has a significant effect on the fishery participants, local communities, and consumers in California and elsewhere. The full impacts of HABs within the California Current Ecosystem should be included in future CCIEA reports and expanded to include areas outside Washington.

Figure 1. California Department of Fish and Wildlife Health Advisories web page example. For full web information

see: https://www.wildlife.ca.gov/fishing/ocean/health-advisories.



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Health Advisories and Closures for California Finfish, Shellfish and Crustaceans

The <u>©California Department of Public Health</u> (CDPH) coordinates a routine monitoring program along the California coast to sample mussels and other shellfish like clams and scallops for the presence of Paralytic Shellfish Poisoning (PSP) and domoic acid toxins. Commercial shellfish harvesters are also required to provide weekly shellfish samples to CDPH for PSP toxin assay and domoic acid analysis. If toxin levels are high enough, warnings and quarantines are issued to protect the recreational fishing public and shellfish consumers.



CDPH also has a coastwide, monthly seawater <u>monitoring program</u> which detects the naturally occurring, microscopic algae that produce PSP and domoic acid toxins. When toxin levels begin increasing, CDPH may expand its mussel sampling effort to include other seafood species. If toxin levels increase quickly beyond the federal alert level for either toxin, then CDPH may immediately issue a health advisory for all potentially impacted seafood species in the affected region.

This web page was established as a source of information for fishermen and the fishing industry. When circumstances arise, @CDPH warnings, quarantine information, and health advisories about consuming California's ocean finfish, shellfish and crustaceans will be posted here.

The <u>mOffice of Environmental Health Hazard Assessment</u> (OEHHA) also issues <u>moonsumption</u> <u>advisories</u> based on the amount of mercury or other chemical toxins found in finfish, shellfish and crustaceans. <u>mSafe eating guidelines</u> to help you to reduce your exposure to chemicals in sport fish — fish that you and your family or friends catch — are also available from OEHHA.

Spiny Lobster Fisheries: Open and Closed Ocean Waters

- The recreational spiny lobster fishery is open. The October 2018 consumption advisory has been lifted. The advisory issued by CDPH advised consumers to avoid eating the viscera (internal organs, also known as "tomalley" or "guts") of spiny lobster taken in state waters around Anacapa and eastern Santa Cruz islands. State health agencies have determined that domoic acid levels no longer pose a significant risk to public health in this area.
- The commercial spiny lobster fishery is open. The fishery closure in state waters around
 Santa Cruz and Anacapa Islands east of 119°30.000' W. longitude, and west of 119°10.000' W.
 longitude, has been lifted. State health agencies have determined that domoic acid levels in
 spiny lobster no longer pose a significant risk to public health in this area, and have
 recommended the area be opened; and CDFW director Charlton Bonham has provided
 notification of fishery reopening to commercial fishermen.
- Please check this web page frequently, or call the Domoic Acid Fishery Closure Information Line at (831) 649-2883, for the most up-to-date information on the commercial fishery closure.

News Releases

- Recreational and Commercial <u>Dungeness Crab Fisheries to Open in</u> <u>Humboldt County</u> (1/18/2019)
- Northern Commercial Dungeness Crab Season Further Delayed in Ocean Waters North of Patrick's Point, Humboldt County Due to Public Health Hazard (1/7/2019)
- Northern California Commercial <u>Dungeness Crab Season Delay</u> <u>Extended</u> (12/21/2018)
- Crab Quality Delays 2018-2019
 Northern California Commercial
 Dungeness Crab Season to Dec. 31
 (12/7/2018)
- Commercial Dungeness Crab Season to Open in Sonoma County (12/3/2018)
- CDPH Lifts Dungeness Crab Health
 Advisory Near Bodega Bay and
 Russian River
 California Department of Public Health
 News Release (12/3/2018)
- Commercial Dungeness Crab Season <u>Delayed in Northern California</u> (11/20/2018)
- <u>CDPH Lifts Warning about Certain</u>
 <u>Bivalve Shellfish from Del Norte and</u>
 <u>Humboldt Counties</u>
 California Department of Public Health News Release (11/19/2018)
- Commercial Spiny Lobster Fishery Closure Lifted in State Waters Around Anacapa Island (11/16/2018)