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](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.