

## **Boundaries for Zonal Abalone Management**

**Suggested by Jack Likins 9-24-2019**

Zones should have boundaries according to the ecological and biological differences among to zones, not arbitrary lines based on where the CDFW has collected data in the past. The Mendocino/Humboldt county line would represent a good biological/environmental boundary because it is well designated and would be easy to enforce. It is near Shelter Cove and in a large remote, relatively inaccessible coastal area.

### **Reasons for Ecological/Biological vs. Data Collection Boundaries:**

1. The CDFW index sites and data collected in Mendocino County do not represent Humboldt and Del Norte counties.
2. We will have more from Humboldt and Del Norte Counties in the future. Data collection is currently being expanded by Humboldt State University and Reef Check California.
3. If we use data from biologically/environmentally different zones we run a higher risk of making incorrect management decisions for either or both zones. (I.e. Even under “normal” environmental conditions abalone densities in Mendocino are much different than Humboldt and Del Norte)
4. If we separate Humboldt and Del Norte from Mendocino, the density triggers used to manage Mendocino County could not be used to manage Humboldt and Del Norte counties because of the biological/environmental difference and naturally lower densities in those counties. These two counties are at the biological/environmental range of the red abalone’s habitat.

5. Because of data availability and data comparison issues, it is recommended that we manage Humboldt and Del Norte counties separately and based on catch levels commensurate with their biological, ecological and abundance attributes.
6. In the past, *open access* fishery fishermen had a choice of where to fish. As a result Humboldt and Del Norte counties had very low fishing pressure and low catch levels due to fishermen's preferences to fish elsewhere. In an open access fishery using Mendocino data to manage Humboldt and Del Norte didn't matter. However, in a *de-minimis* fishery situation, which will likely be the only type of fishery available in California for a very long time (i.e. Southern California's 22 year closure) we will have to control catch by limiting access other ways (i.e. lotteries).
7. We have an opportunity to have a small, de-minimis fishery in Humboldt and Del Norte Counties, but we have to manage it differently than Mendocino County and with managed low catch levels.

There is not an ecological reason to make Marin County a 4<sup>th</sup> fishing zone. It has had and, even if opened as part of Sonoma County, will continue to have a low level of abalone fishing because of SHARKS. We should not encourage people to dive in sharky water, and they won't, if they have a choice. Sonoma and Marine Counties should be managed together for this reason. The reason we don't have data from Marin is because even the experienced surveyors don't want to dive these sharky waters and run the risk of attacks.