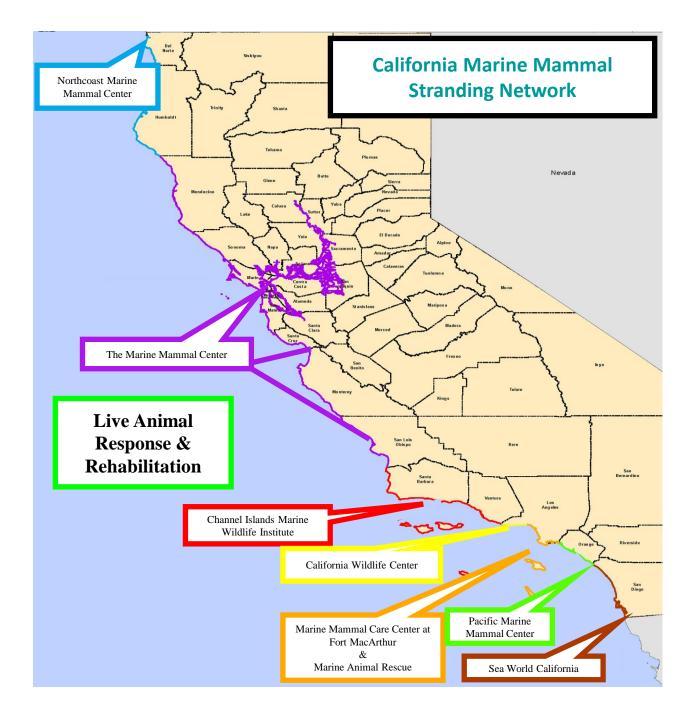
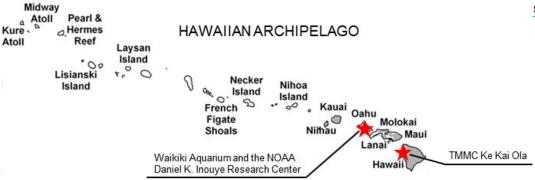
*Testimony prepared for the* Joint Committee on Fisheries and Aquaculture Chair: Senator Mike McGuire

Dr. Jeff Boehm April 28, 2016



# TMMC at work in California and Hawaii







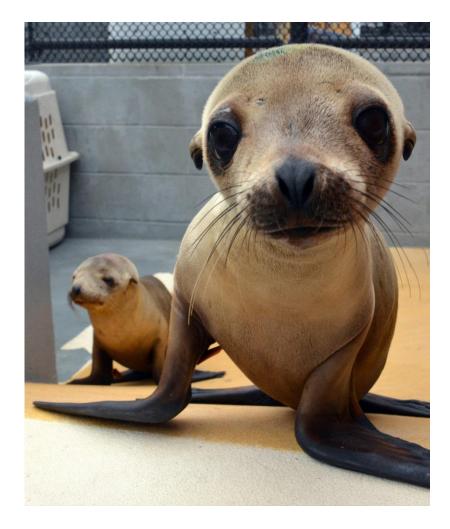
#### ...by the Numbers

- Founded in 1975
- 21,000 marine mammal patients treated
- 60-plus staff
- 1,200 volunteers
- 85% of funds from private sources



Mammal Center

## **Medical Conditions**



Malnutrition Toxicity Infection Cancer Entanglement Maternal separation Gunshot/Shark bite



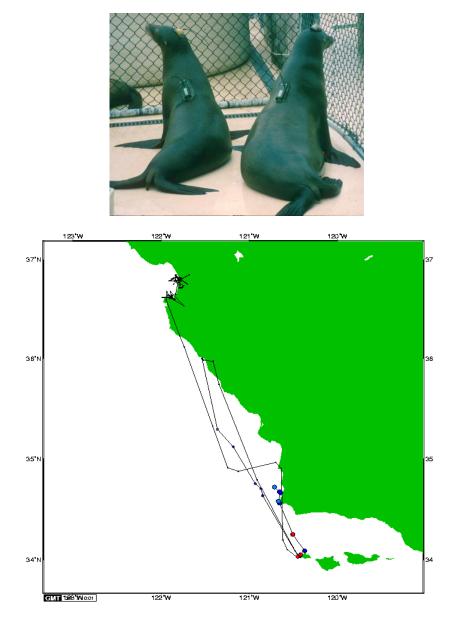
The Marine Mammal Center

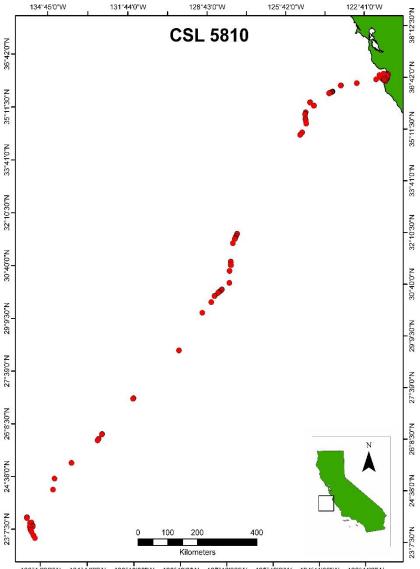
#### **Domoic Acid and Marine Mammals**

- 1998 first diagnosed in stranded California sea lions admitted to The Marine Mammal Center
- Clinical signs: seizures, disorientation, coma, death
- Later recognized:
  - Other marine mammal species
  - Earlier cases suggested DA toxicosis
  - Chronic DA toxicosis as separate syndrome
- Sea lions with DA toxicosis are five times more likely in females

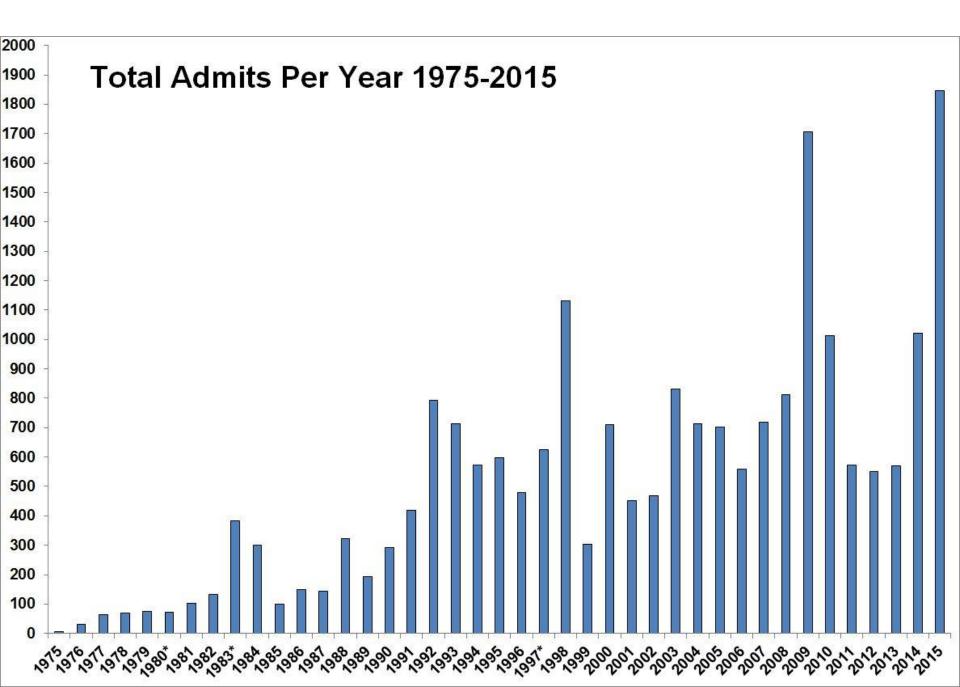






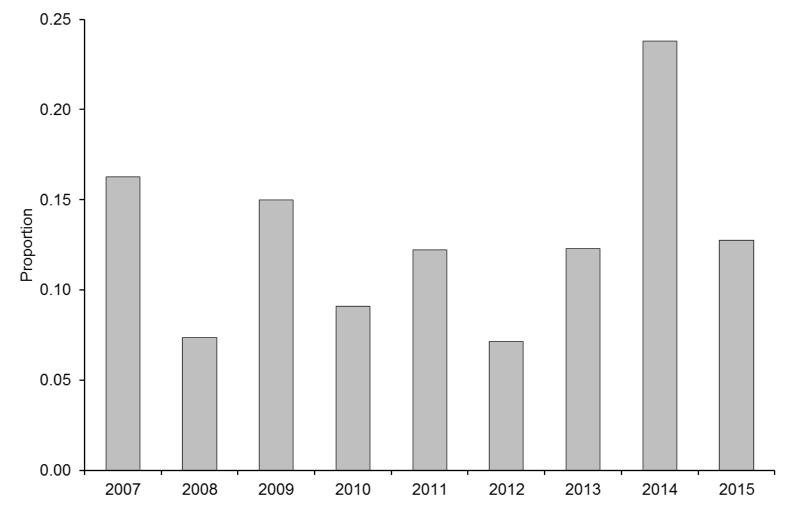


133°14'30"W 131°44'0"W 130°13'30"W 128°43'0"W 127°12'30"W 125°42'0"W 124°11'30"W 122°41'0"W

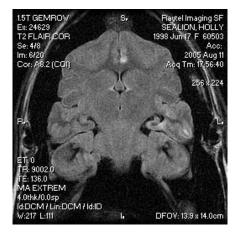


#### Domoic Acid Toxicosis, 2007-2015

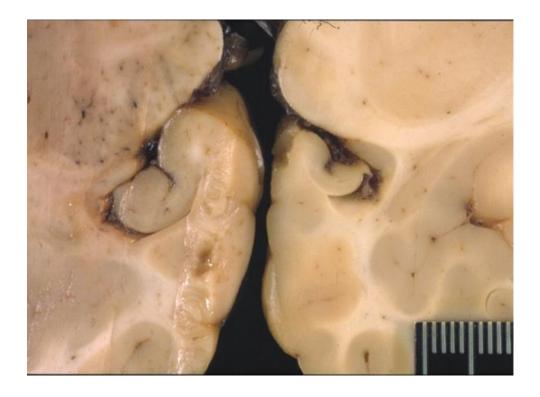
DA toxicosis cases relative to total admissions

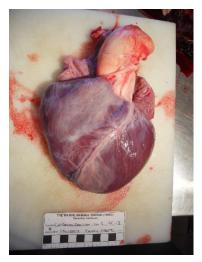






#### Neurologic pathology





#### Degenerative cardiomyopathy



Reproductive failure

#### Warning and Surveillance

Dept. of Public Health

dlife Algal-toxin Research Response Network ARRN-West)

### Questions