

# Organic Contaminants in Two Species of Thresher Sharks



## Introduction

### Habitat:

- Common Threshers are coastal
- Bigeye Threshers are deep water

### Persistent Organic Pollutants (POPs):

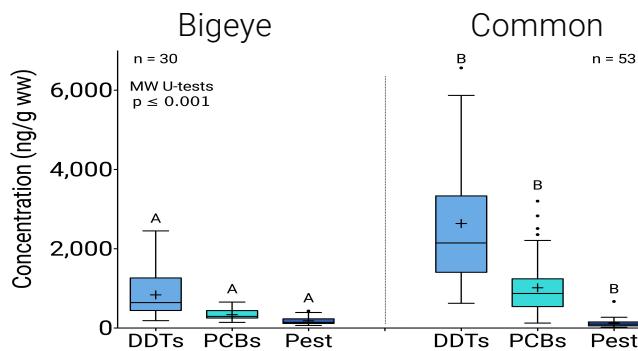
- Many were banned over 30 years ago, but are still found in high levels
- Southern California is a DDT hot spot

## Goal

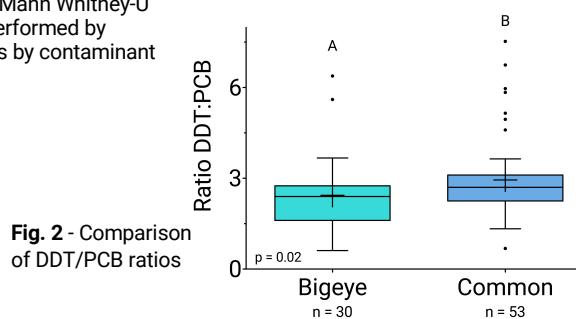
Test if differences in ecological niches of the two species would result in differences in their accumulation of POPs

## Methods

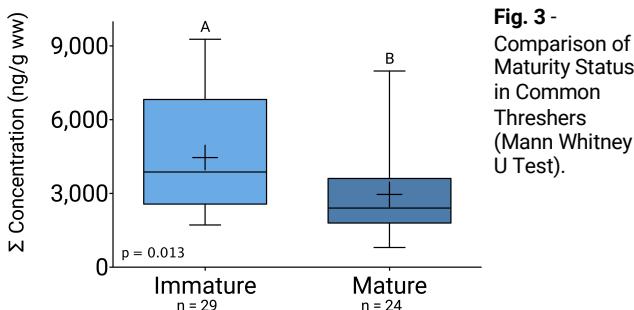
- Threshers were sampled through fisheries-dependent and independent methods
- Livers were extracted and analyzed for a suite of POPs



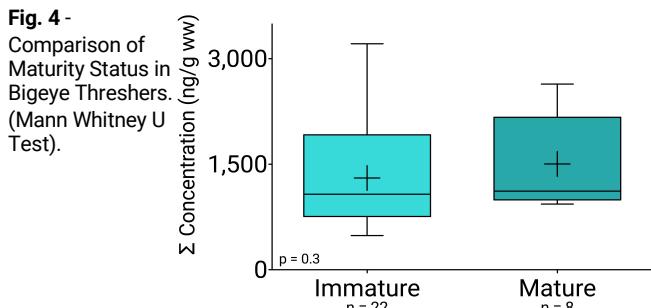
**Fig. 1** - Comparison of 3 POPs. Mann Whitney-U Test performed by species by contaminant group



**Fig. 2** - Comparison of DDT/PCB ratios



**Fig. 3** - Comparison of Maturity Status in Common Threshers (Mann Whitney U Test).



**Fig. 4** - Comparison of Maturity Status in Bigeye Threshers. (Mann Whitney U Test).

## Comparison of POP levels

Significantly higher PCBs, DDTs, and total POPs in Common Threshers

- Could be the result of closer proximity to anthropogenic activity
- Common Threshers had higher contributions of DDTs

## Common Thresher Maturity Status

Juveniles were significantly higher than mature sharks

- Maternal offloading may account for higher levels in juveniles

## Bigeye Thresher Maturity Status

No significant difference between juvenile and mature sharks

- Sample contained mainly mature males; sex bias of samples implicated

## Conclusion

Ecological differences in niche space result in different accumulation of POPs