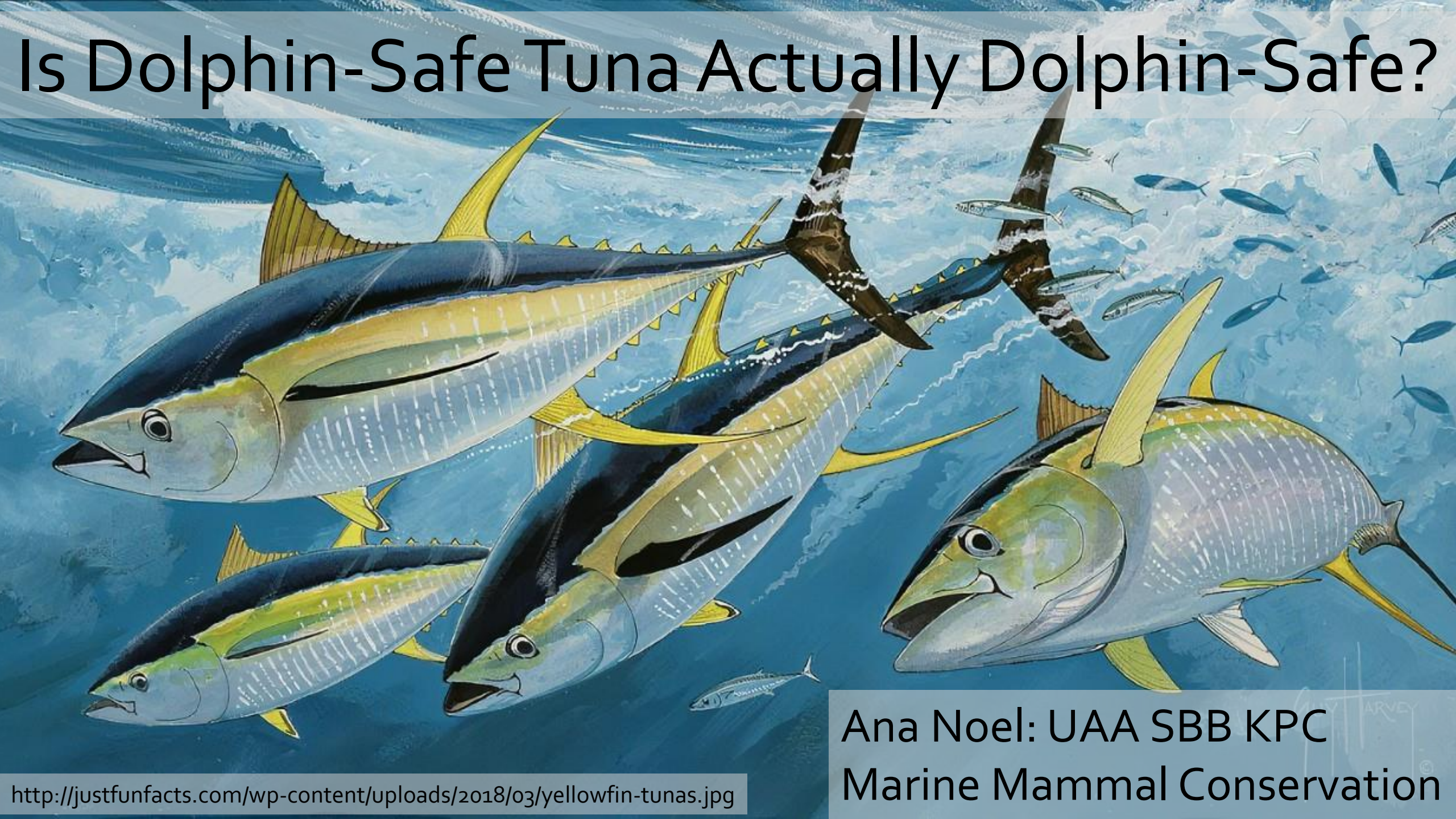


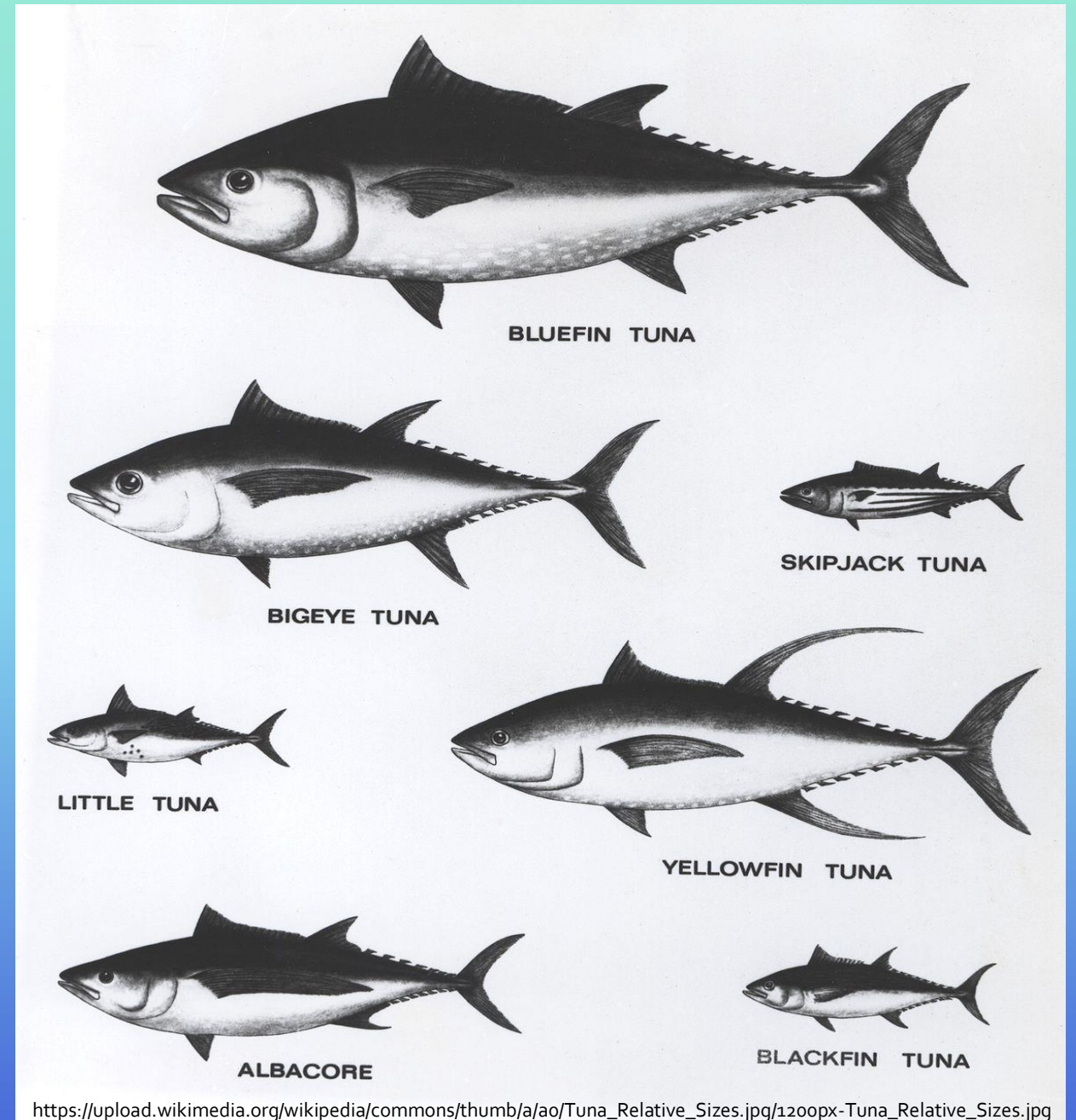
# Is Dolphin-Safe Tuna Actually Dolphin-Safe?



Ana Noel: UAA SBB KPC  
Marine Mammal Conservation

# Tuna Interactions

- Skipjack most popular
- Associated with floating objects
  - Whale sharks
  - Whales
  - Dolphins
  - Logs
  - Floating fishing devices
- Yellowfin = Dolphins
  - Speed
  - Size
  - Prey
  - Habitat
- Eastern Tropical Pacific (ETP)



[https://upload.wikimedia.org/wikipedia/commons/thumb/a/ao/Tuna\\_Relative\\_Sizes.jpg/1200px-Tuna\\_Relative\\_Sizes.jpg](https://upload.wikimedia.org/wikipedia/commons/thumb/a/ao/Tuna_Relative_Sizes.jpg/1200px-Tuna_Relative_Sizes.jpg)

(Scott et al., 2012)

# Dolphin Species Associated with Tuna (Francis et al., 1992)



Spotted dolphin (*Stenella attenuata*)



Spinner dolphin (*Stenella longirostris*)



Common dolphin (*Delphinus delphis*)



Striped dolphin (*Stenella coeruleoalba*)



Rough-toothed dolphin (*Steno bredanensis*)



Bottlenose dolphin (*Tursiops truncatus*)



Fraser's dolphin (*Lagenodelphis hosei*)

Dolphin	Percent Sets
Northern Offshore Spotted	81.6
Eastern Spinner	23.7
Northern Whitebelly Spinner	8.6
Central Common	4.7
Southern Offshore Spotted	2.1
Northern Common	2.0
Southern Common	1.2
Southern Whitebelly Spinner	0.8

(Francis et al., 1992)

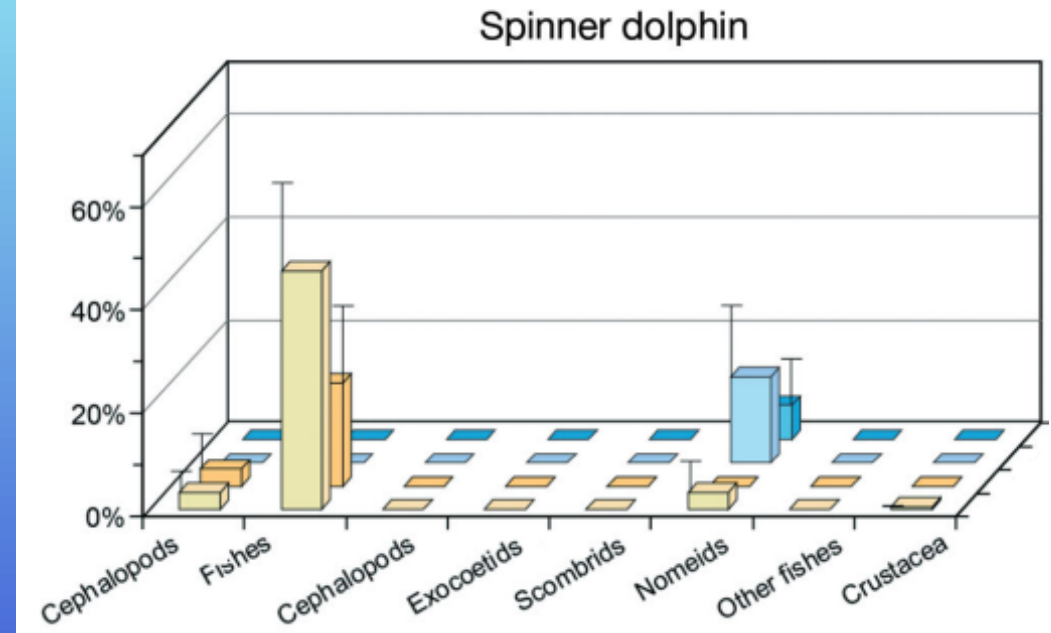
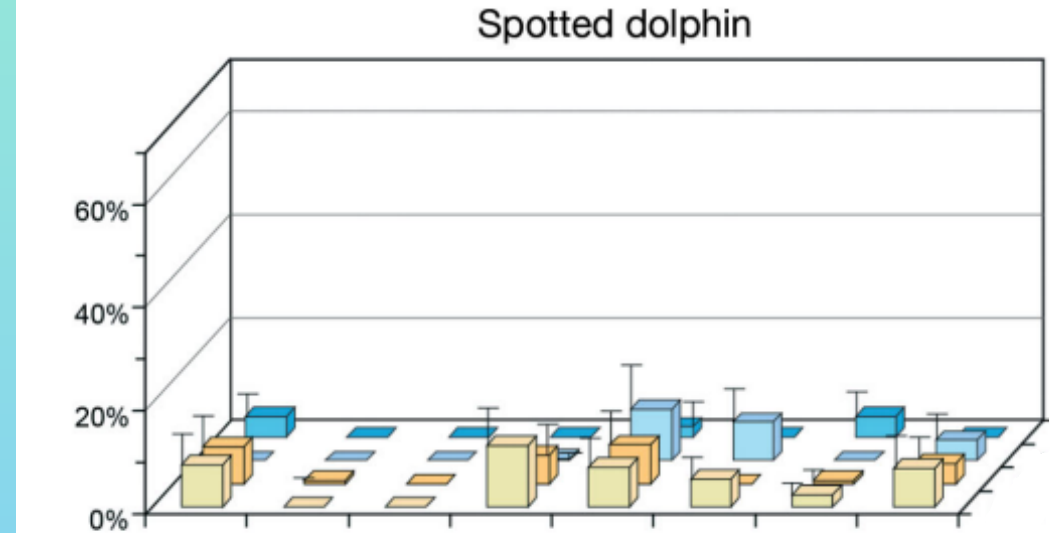
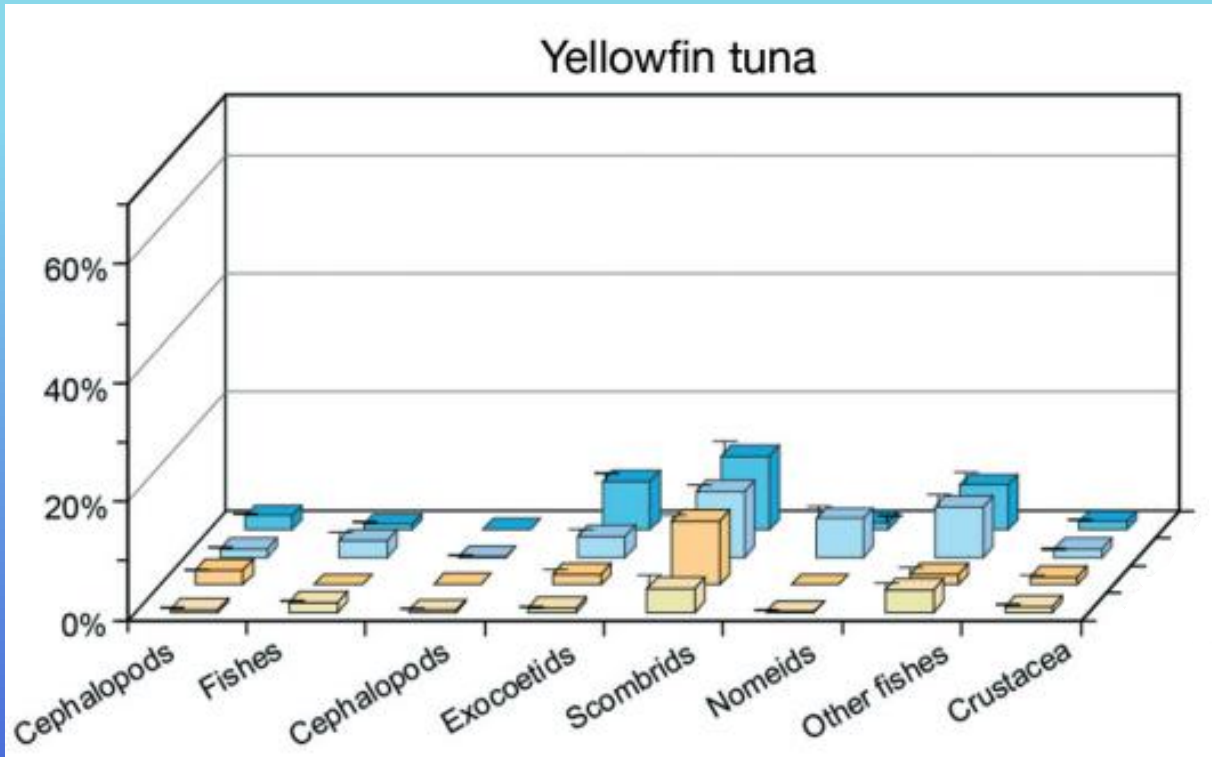
“87% of all spinner dolphin sightings are in mixed-species herds associated with spotted dolphins.”

(Scott et al., 2012)

**Yellowfin tuna:** Epipelagic prey

**Spotted dolphins:** Epipelagic prey

**Spinner dolphins:** Mesopelagic prey



# Spotted Dolphin + Yellowfin Tuna Interactions

## Benefits

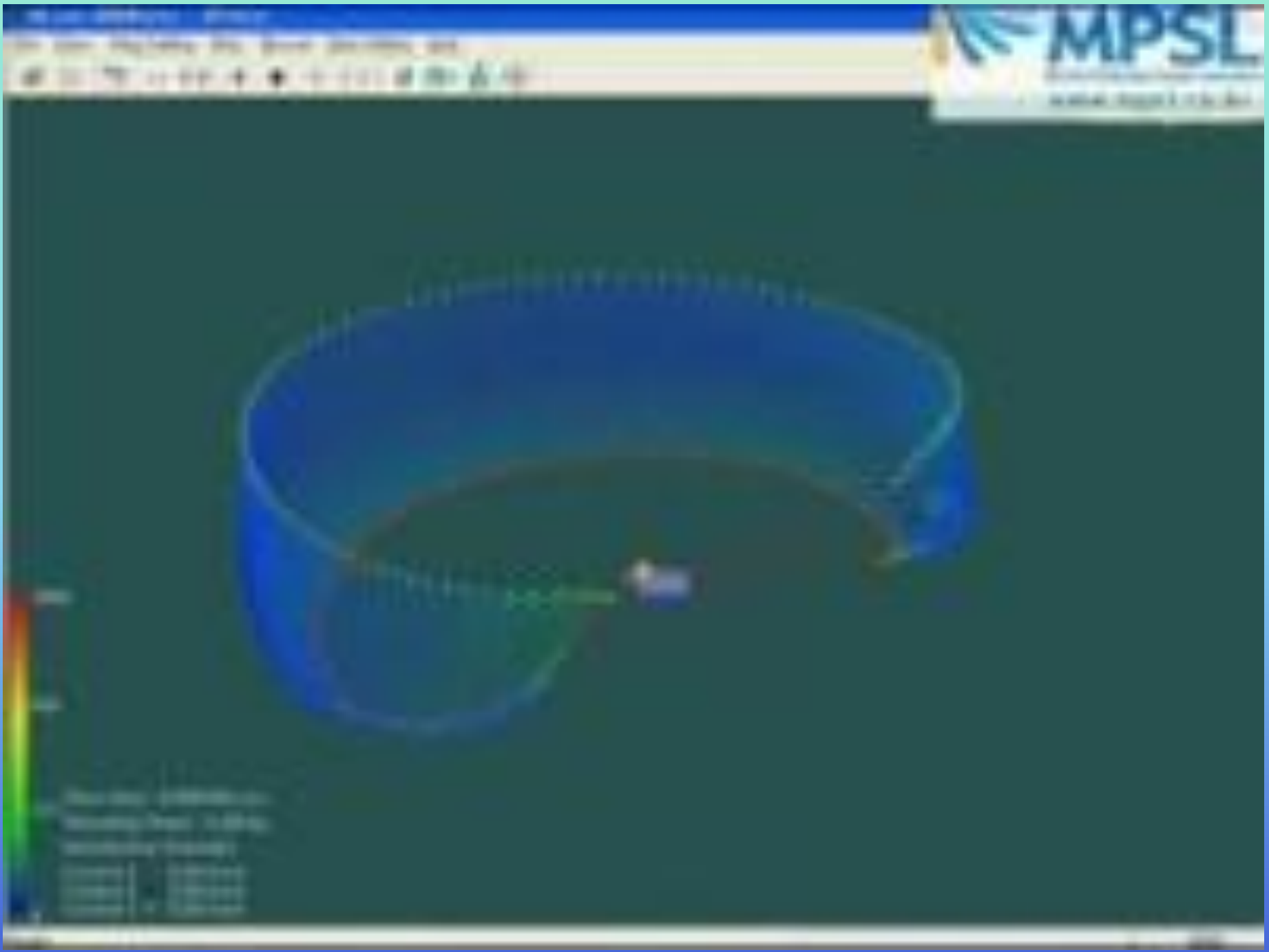
- Prey
  - Dolphin echolocation
  - Tuna smell
- Predators
  - Sharks
  - Billfishes
  - False killer whales (*Pseudorca crassidens*)
  - Killer whales (*Orcinus orca*)
- Predation
  - Groups
  - Position in water column

## Who follows who?

- Tuna follows dolphin
  - Feeding tuna
  - Bait boats
  - Escape from net

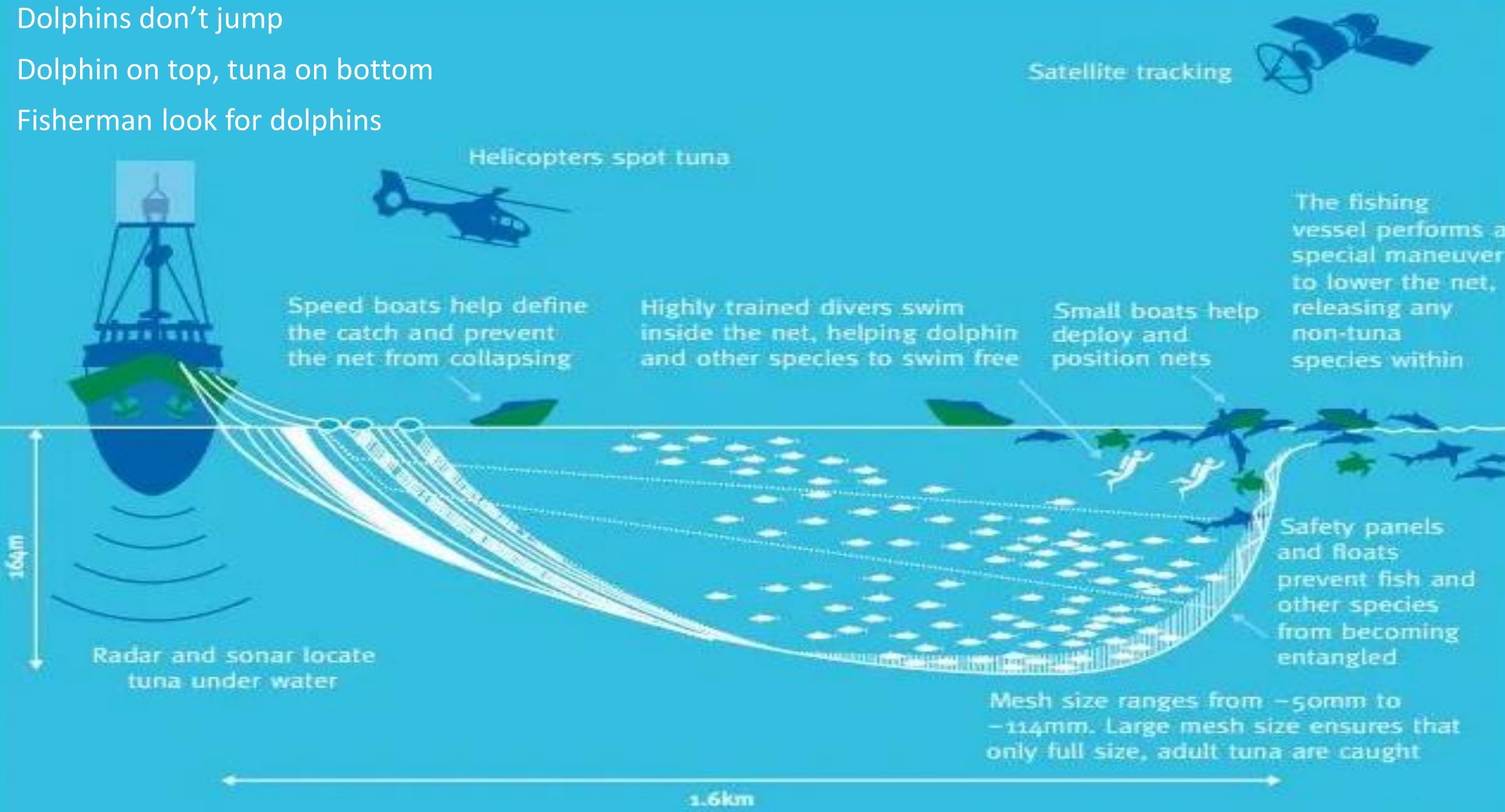


<https://www.fishingrssfeeds.com/wp-content/uploads/2017/10/huge-yellowfin-tuna.jpg>



<https://youtu.be/PuwIXqzS5Zc>

- Dolphins don't jump
- Dolphin on top, tuna on bottom
- Fisherman look for dolphins



Satellite tracking

Helicopters spot tuna

Speed boats help define the catch and prevent the net from collapsing

Highly trained divers swim inside the net, helping dolphin and other species to swim free

Small boats help deploy and position nets

The fishing vessel performs a special maneuver to lower the net, releasing any non-tuna species within

164m

Radar and sonar locate tuna under water

Safety panels and floats prevent fish and other species from becoming entangled

Mesh size ranges from -50mm to -114mm. Large mesh size ensures that only full size, adult tuna are caught

1.6km

(Parsons, 1991)

<https://www.bmis-bycatch.org/sites/default/files/inline-images/medina-panel-divers-pacific-tuna-alliance.PNG>

Not to scale



# History of Dolphin-Safe Label

- 1950: Line and purse sein (Ramach, 1996)
- 1970: Public outrage
- 1972: MMPA
  - US: Person on boat
- After MMPA
  - Dolphin mortality: 252k in 1973 - 8258 in 1983
  - Foreign countries disregard
- 1990: Earth Island Institute (EII) establishes dolphin safe label
  - Dolphin Protection Consumer Information Act (DPCIA): nets/seins ≠ dolphin-safe (Ramach, 1996)
  - US laws ≠ foreign law
  - UK: first party labels

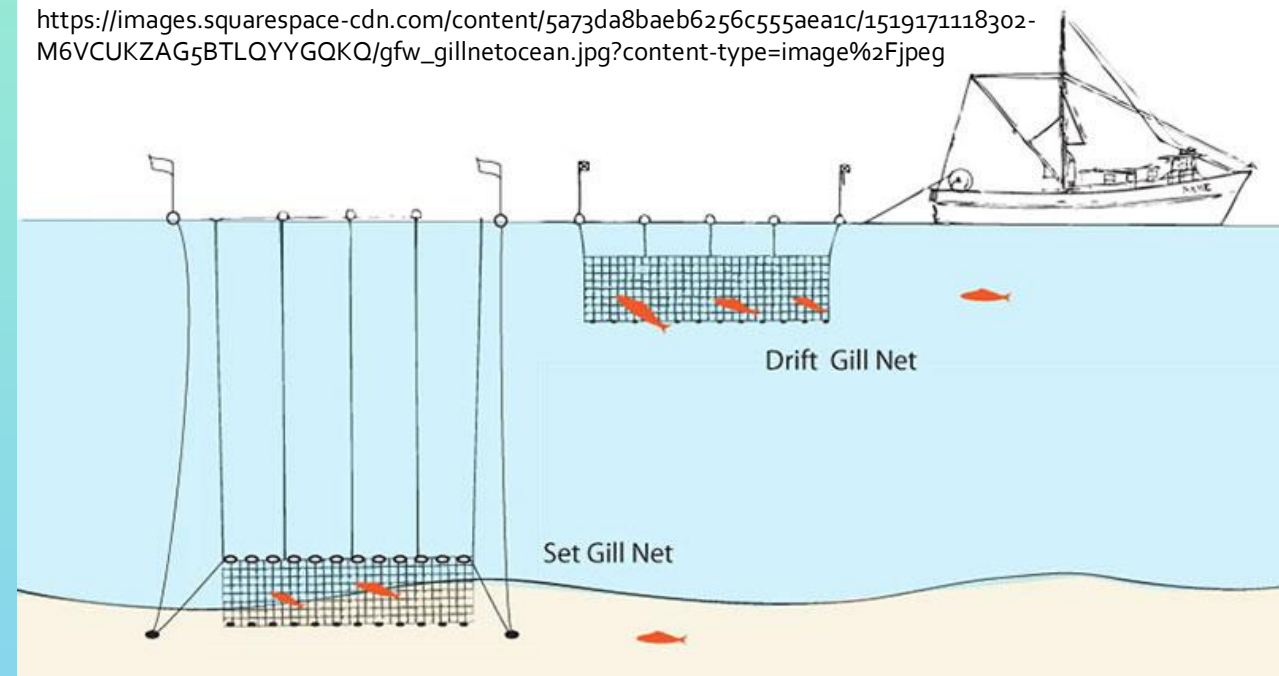
# Marine Mammal Protection Act 1972

“The purpose of the Act is to reduce to insignificant levels the number of marine mammals incidentally killed during commercial fishing operations (Parson 1994).”

Exceptions: (1) Native Americans can take, (2) Commercial fisheries can take with permit unless endangered (Francis et al., 1992), and (3) Purse seine fishing for yellowfin tuna, so that the zero-mortality goal is met (Ramach, 1996)

# History (Cont.)

- 1950: Line and purse sein (Ramach, 1996)
- 1970: Public outrage
- 1972: MMPA
  - US: Person on boat
- After MMPA
  - Dolphin mortality: 252k in 1973 - 8258 in 1983
  - Foreign countries disregard
- 1990: Earth Island Institute (EII) establishes dolphin safe label
  - Dolphin Protection Consumer Information Act (DPCIA): nets/seins ≠ dolphin-safe (Ramach, 1996)
  - US laws ≠ foreign law
  - UK: first party labels



# History (Cont.)

- 1990: Embargo on Mexico
- 1991: GATT (Musgrave and Stephens, 1993)
- 1992: La Jolla Agreement
  - Dolphin mortality rates  $<5,000/\text{year}$  (Ramach, 1996)
- 1992: Illegal to ship tuna to US if not dolphin-safe (Ramach, 1996)
- 1993: EIU monitors
- 1995: Panama Declaration: tuna = dolphin-safe ( $<5,000/\text{year}$ ) (Ramach, 1996)
  - 12 Nations
- 1996: Dolphin safe = purse seines; not killed

# What is Dolphin-Safe?



# What is Dolphin-Safe?



<https://img.favpng.com/11/24/24/dolphin-safe-label-logo-font-crest-png-favpng-x1h7jfxAMQW8S3zCs17Eo3RH8.jpg>

[https://static.bangkokpost.com/media/content/20160324/c1\\_908636\\_160324075441\\_700.jpg](https://static.bangkokpost.com/media/content/20160324/c1_908636_160324075441_700.jpg)

(Brown, 2005)

# What is Dolphin-Safe?



[https://www.dr.dk/images/other/2019/03/21/msc\\_daase.png](https://www.dr.dk/images/other/2019/03/21/msc_daase.png)

<https://img.favpng.com/11/24/24/dolphin-safe-label-logo-font-crest-png-favpng-x1h7jfxAMQW8S3zCs17Eo3RH8.jpg>

[https://static.bangkokpost.com/media/content/20160324/c1\\_908636\\_160324075441\\_700.jpg](https://static.bangkokpost.com/media/content/20160324/c1_908636_160324075441_700.jpg)

(Brown, 2005)

# What is Dolphin-Safe?

# Responsibly sourced

Sustainable



[https://www.dr.dk/images/other/2019/03/21/msc\\_daase.png](https://www.dr.dk/images/other/2019/03/21/msc_daase.png)

All natural



# What is Dolphin-Safe?

Safeway claim



**DOLPHIN  
SAFE**  
TM



[https://www.dr.dk/images/other/2019/03/21/msc\\_daase.png](https://www.dr.dk/images/other/2019/03/21/msc_daase.png)

<https://img.favpng.com/11/24/24/dolphin-safe-label-logo-font-crest-png-favpng-x1h7jfxAMQW8S3zCs17Eo3RH8.jpg>

[https://static.bangkokpost.com/media/content/20160324/c1\\_908636\\_160324075441\\_700.jpg](https://static.bangkokpost.com/media/content/20160324/c1_908636_160324075441_700.jpg)

(Brown, 2005)

# What is Dolphin-Safe?

Safeway claim

Dolphin-free



**DOLPHIN  
SAFE**  
TM



[https://www.dr.dk/images/other/2019/03/21/msc\\_daase.png](https://www.dr.dk/images/other/2019/03/21/msc_daase.png)

<https://img.favpng.com/11/24/24/dolphin-safe-label-logo-font-crest-png-favpng-x1h7jfxAMQW8S3zCs17Eo3RH8.jpg>

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(Brown, 2005)

# What is Dolphin-Safe?

Safeway claim

Dolphin-free



[https://www.dr.dk/images/other/2019/03/21/msc\\_daase.png](https://www.dr.dk/images/other/2019/03/21/msc_daase.png)



Dolphin-friendly

<https://img.favpng.com/11/24/24/dolphin-safe-label-logo-font-crest-png-favpng-x1h7jfxAMQW8S3zCs17Eo3RH8.jpg>

[https://static.bangkokpost.com/media/content/20160324/c1\\_908636\\_160324075441\\_700.jpg](https://static.bangkokpost.com/media/content/20160324/c1_908636_160324075441_700.jpg)

(Brown, 2005)

# Current Dolphin-Safe Label Guidelines

**The EIU 'Dolphin Safe' label uses the following standards:**

- (1)** No intentional chasing, netting or encirclement of dolphins during an entire tuna fishing trip
- (2)** No use of drift gill nets to catch tuna
- (3)** No accidental killing or serious injury to any dolphins during net sets
- (4)** No mixing of dolphin-safe and dolphin-deadly tuna in individual boat wells (for accidental kill of dolphins), or in processing or storage facilities
- (5)** Each trip in the Eastern Tropical Pacific Ocean (ETP) by vessels 400 gross tons and above must have an independent observer on board attesting to compliance with points (1) through (4) above.

# Impacts of Labeling

## Label Importance

- Public protest (Ramach, 1996)
- Consumer choice (Teisl, 2002)

## Problems (Brown, 2005)

- Foreign countries don't follow dolphin-safe by EIU
- Embargos
- UK non-dolphin safe labels
- Variety of labels/claims (Czarnezki et al., 2014)
- MMPA ≠ Dolphin-safe (Parsons, 1991)
- Not 100% monitoring (Parsons, 1991)

<https://imagesglobal.nhst.tech/image/cG1XenRRVogvb3NtekdtbFFXL1NMUKZqenZalNOdnYoUzVKLoRFamdIbzo=/nhst/binary/cg1a07bccd7boe5c8fcob839cob454d5>



<https://www.truthinadvertising.org/wp-content/uploads/2019/06/Screenshot-2019-06-19-at-10.18.13-AM-1024x578.png>



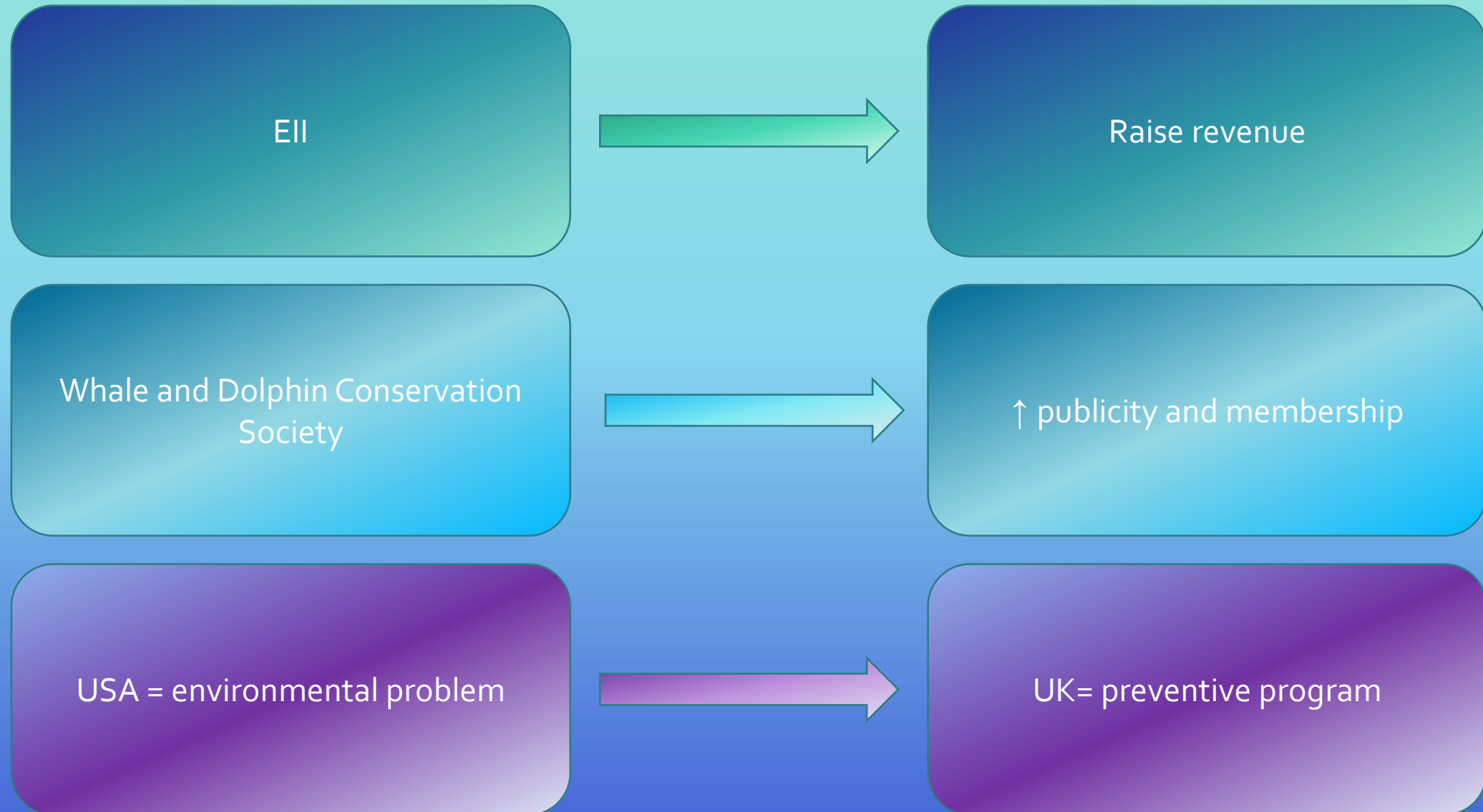
<https://i10.photobucket.com/albums/a142/Bronkster/dolphin-safe-label.jpg>

00:25:39-00:27:14 *Seaspiracy* (Tabrizi, 2021)



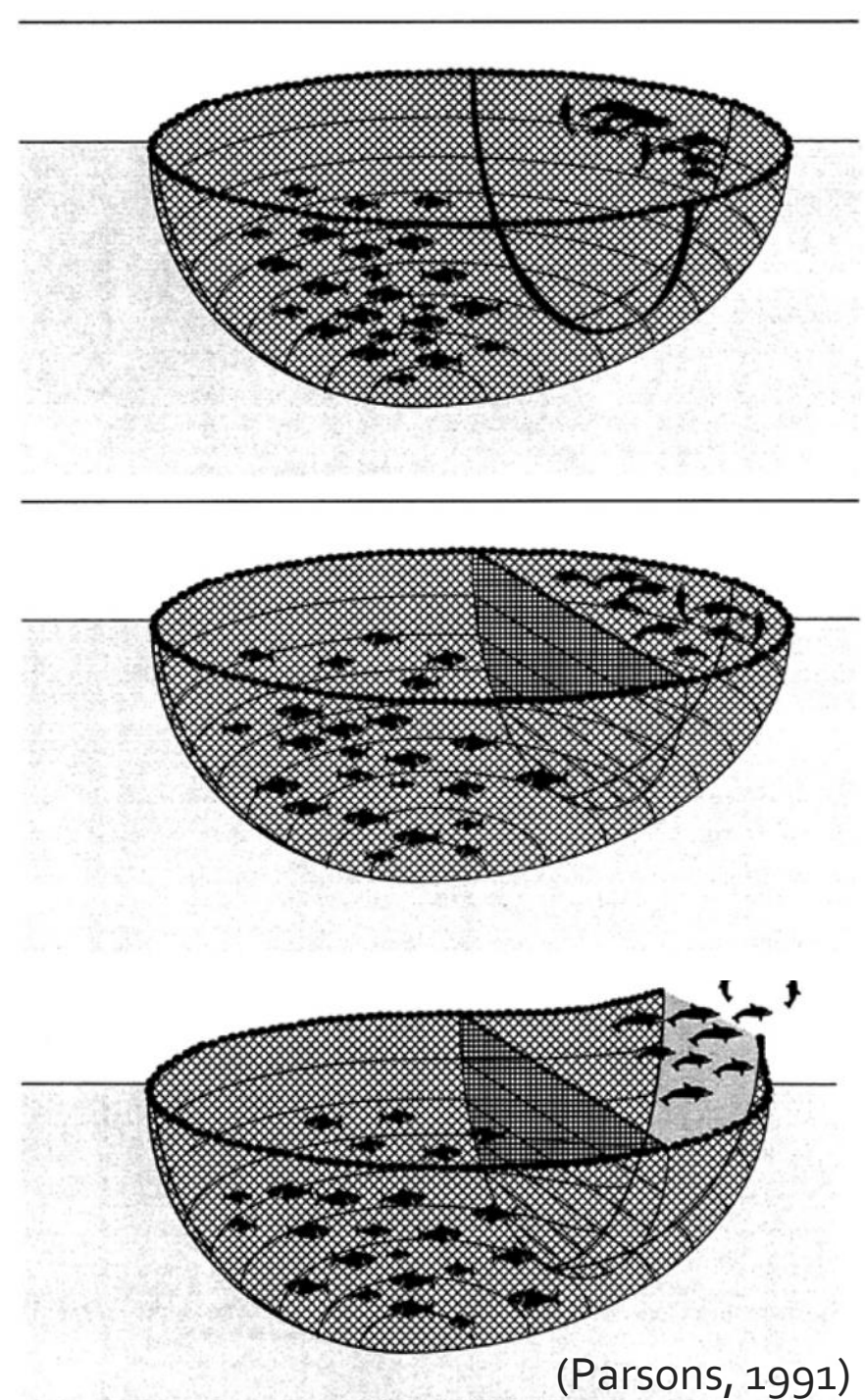
**EARTH ISLAND INSTITUTE**  
DOLPHIN CAVE TUNA HQ

# Impacts of Labeling: Controversy



# Conservation Methods

- Safer equipment (Francis et al., 1992)
- Stricter MMPA
- 100% vessel monitoring
- Pay fisheries, consumers will pay more
- Public education
- Reduce tuna intake (Tabrizi, 2021)
- Switch to skipjack tuna
- Establish 1 dolphin-safe label (Brown, 2005)
- **International laws**



(Parsons, 1991)



# References

- Boreman, S. M. (1992). Dolphin-safe tuna: what's in a label? The killing of dolphins in the Eastern Tropical Pacific and the case for an international legal solution. *Natural Resources Journal*, 32(3), 425-447.
- Brown, J. (2005). An account of the dolphin-safe tuna issue in the UK. *Marine Policy*, 29(1), 39-46.
- Czarnezki, J. J., Homant, A., and Jeans, M. (2014). Greenwashing and self-declared seafood ecolabels. *Tulane Environmental Law Journal*, 37-52.
- Francis, R. C., Awbrey, F. T., Goudey, C. A., Hall, M. A., King, D. M., Medina, H., Norris, K. S., Orbach, M. K., Payne, R., and Pikitch, E. (1992). Dolphins and the tuna industry. *National Research Council, Washington*.
- Kirby, D. S., Visser, C., and Hanich, Q. (2014). Assessment of eco-labelling schemes for Pacific tuna fisheries. *Marine Policy*, 43, 132-142.
- Musgrave, R. K., and Stephens, G. (1993). The GATT-tuna dolphin dispute: an update. *Natural Resources Journal*, 957-975.
- Parsons, M. T. (1991). The Marine Mammal Protection Act: working toward an effective international solution to the dolphin problem. *Transnational Law*, 4, 673.
- Ramach, J. (1996). Dolphin-safe tuna labeling: are the dolphins finally safe?. *Virginia Environmental Law Journal*, 743-784.
- Scott, M. D., Chivers, S. J., Olson, R. J., Fiedler, P. C., and Holland, K. (2012). Pelagic predator associations: tuna and dolphins in the Eastern Tropical Pacific Ocean. *Marine Ecology Progress Series*, 458, 283-302.
- Tabrizi, A. (Director). (2021). *Seaspiracy* [Film]. Aum Films and Disruptive Studios.
- Teisl, M. F., Roe, B., and Hicks, R. L. (2002). Can eco-labels tune a market? Evidence from dolphin-safe labeling. *Journal of environmental Economics and Management*, 43(3), 339-359.



<https://www.robertharding.com/watermark.php?type=preview&im=RM/RH/HORIZONTAL/983-66>

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