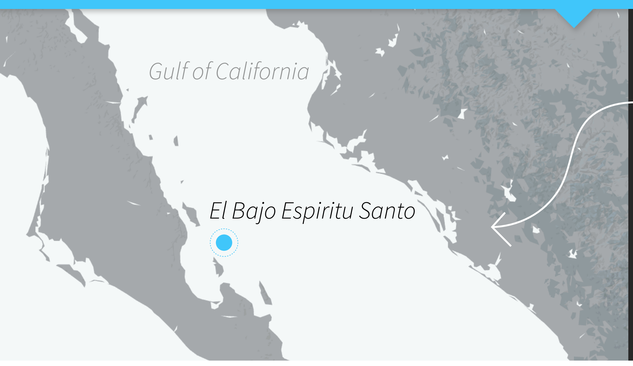
Why do *some* seamounts function as ocean "hotspots" promoting elevated productivity, biomass, and predator diversity?

seamount (n).
a submarine mountain



At a shallow seamount, *Espiritu Santo* in the Gulf of California, a unique mix of open-ocean and reef-dwelling fish species co-occur.

Why are they here?

spawning

foraging

refuge

navigation

Warm and cold water pulses attract different species groupings from these families:

Dolphinfish
1 spp.

Sharks
4 spp.

Billfish
3 spp.

Tunas
3 spp.

Groupers
3 spp.

Jacks
6 spp.

Snappers
7 spp.

RESULT

The number of species (richness) is greatest when **both** cold and warm water masses surround *Espiritu Santo*.

CONCLUSION

The physical shape of a seamount *and* local patterns of ocean water masses can combine to create a greater range of habitat types where more fish species can co-occur exploiting a greater breadth of resources.

PeerJ

Seasonal changes in fish assemblage structure at a shallow seamount in the Gulf of California PeerJ 4:e2357
DOI: 10.7717/peerj2357 https://peerj.com/articles/2357/