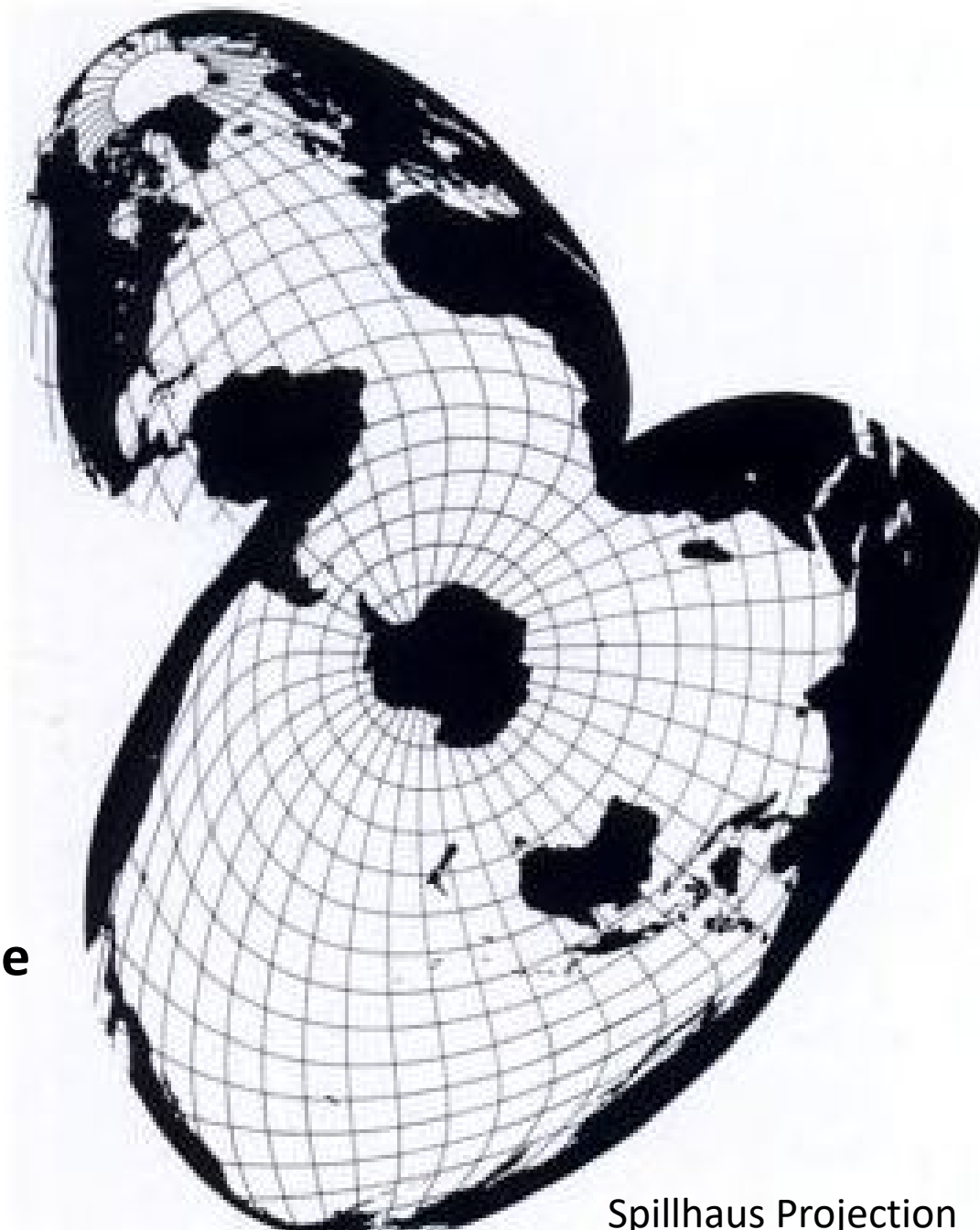


Antibiotic Stewardship in Aquatic Livestock Production

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Spillhaus Projection

Assuming NO Abx (or little use)



~~Alternatives:~~ Appropriate first responses:

- Biosecurity for primary pathogens
- Environment control/modification for species
- Vx for expected and economically important
- Clinical Dx for distinction of etiologies
- Passive immunity for contrary infections
- Immunostimulants for innate mobilization
- Control of biotope populations
- Discontinue/alternate some Disinfectants
- Genetic selection

Globally:

17 industrialized species of aquatic livestock

~40 countries w/ significant activity

Major progress in marine/estuarine spp.

(Aquatic Livestock + Wild) > (Beef + Pork + Chicken)

3 billion get > 20% animal protein from fish

USA:

Major species (CCF, RBT, ASL, TLP)

VFD since 2006 for Aquaflor. OTC & RMT

1 Health Authority but 3 Federal Agencies regulate

3 categories of livestock (farmed, conserv., pet fish)

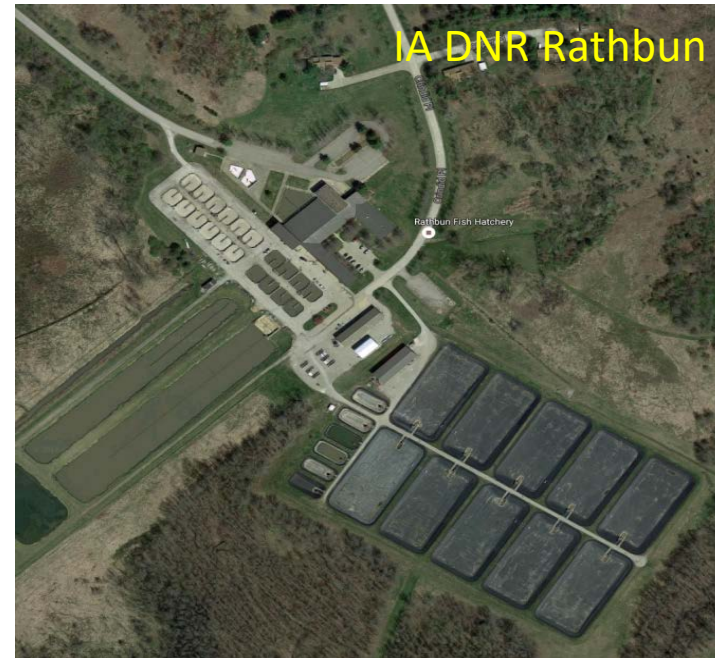
Inadequate disease reporting thru Nat. Res. Agen.



Snap-shot of majority of USA Aquatic Livestock Facilities



http://www.ftffa.com/content/fish_farming_in_fl.php





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Thank you!