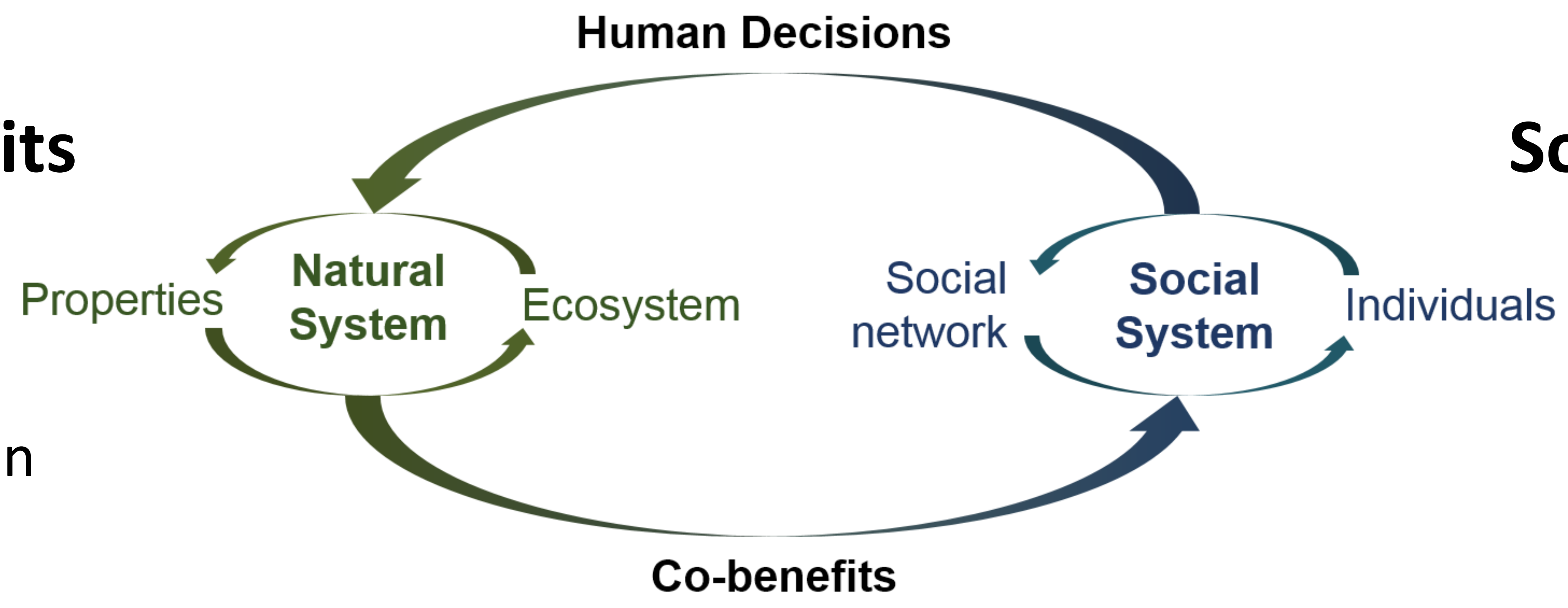


The ecological and social contexts of living shorelines

Amanda G. Guthrie*, Donna M. Bilkovic, Carl Hershner, Sarah Stafford, Robert E. Isdell

Living Shoreline co-benefits

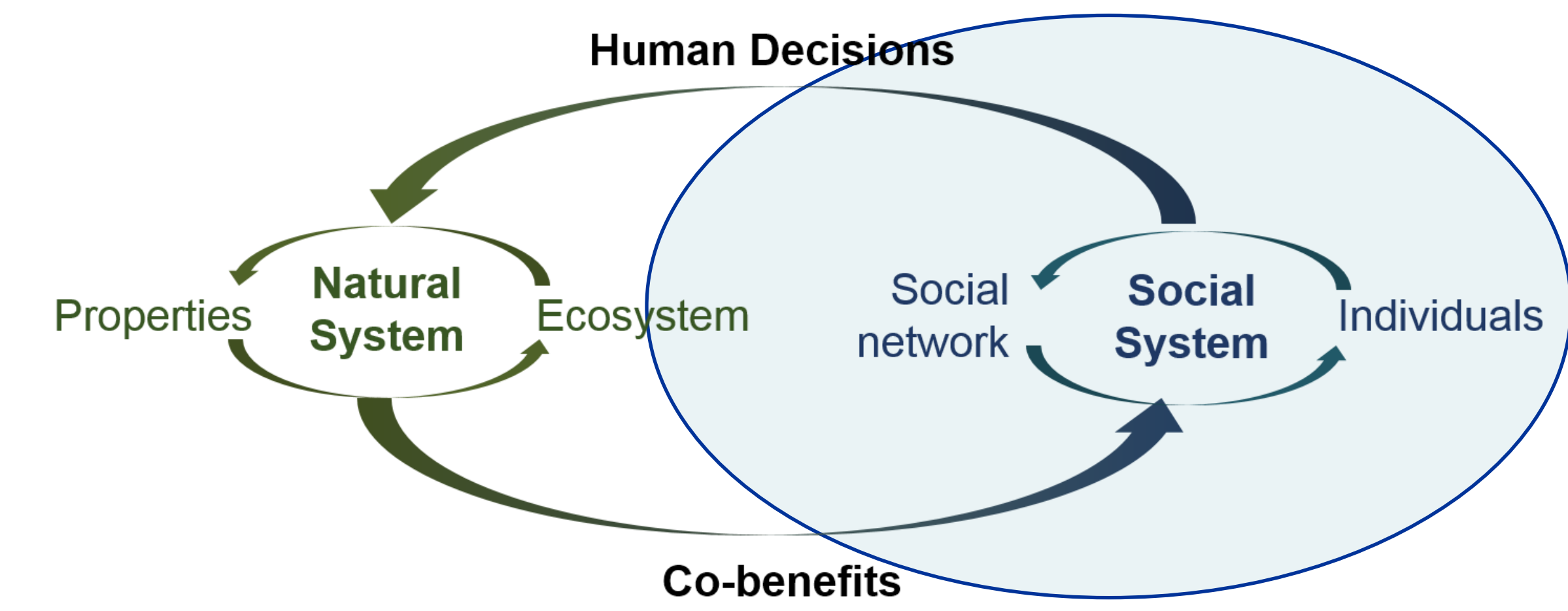
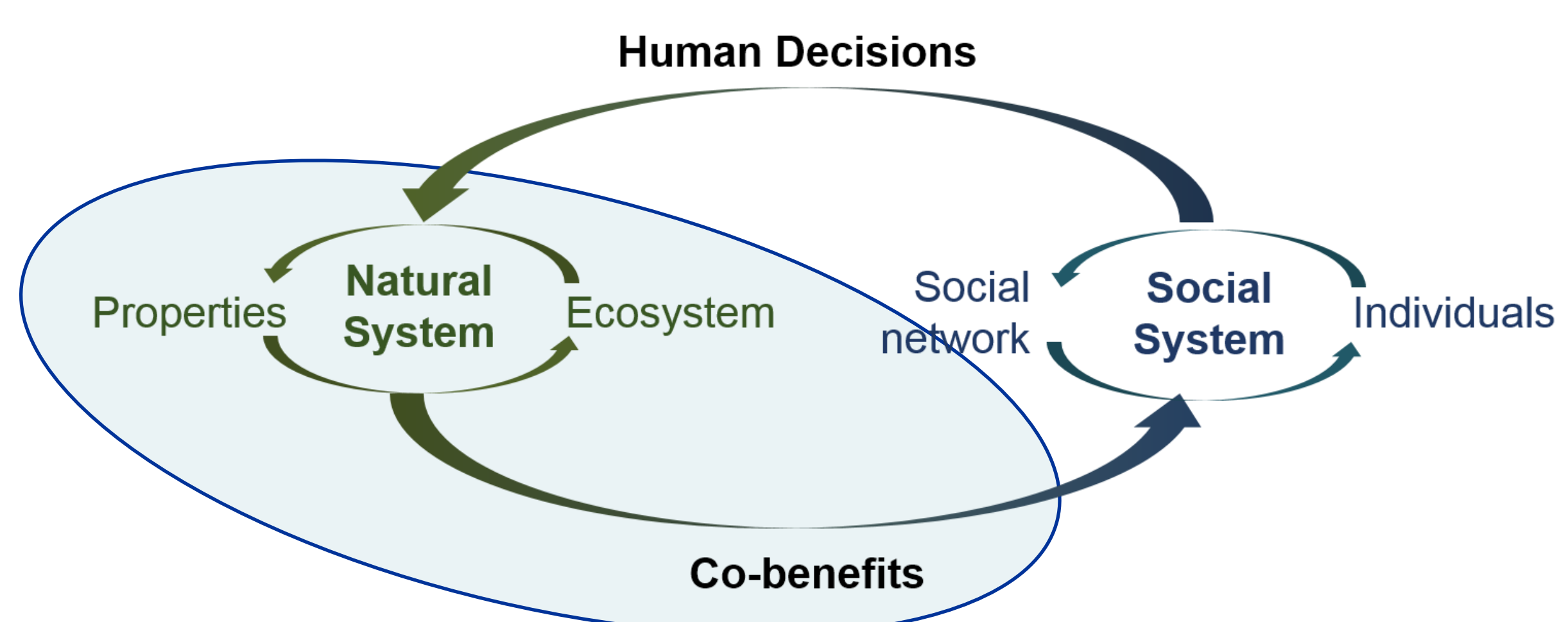
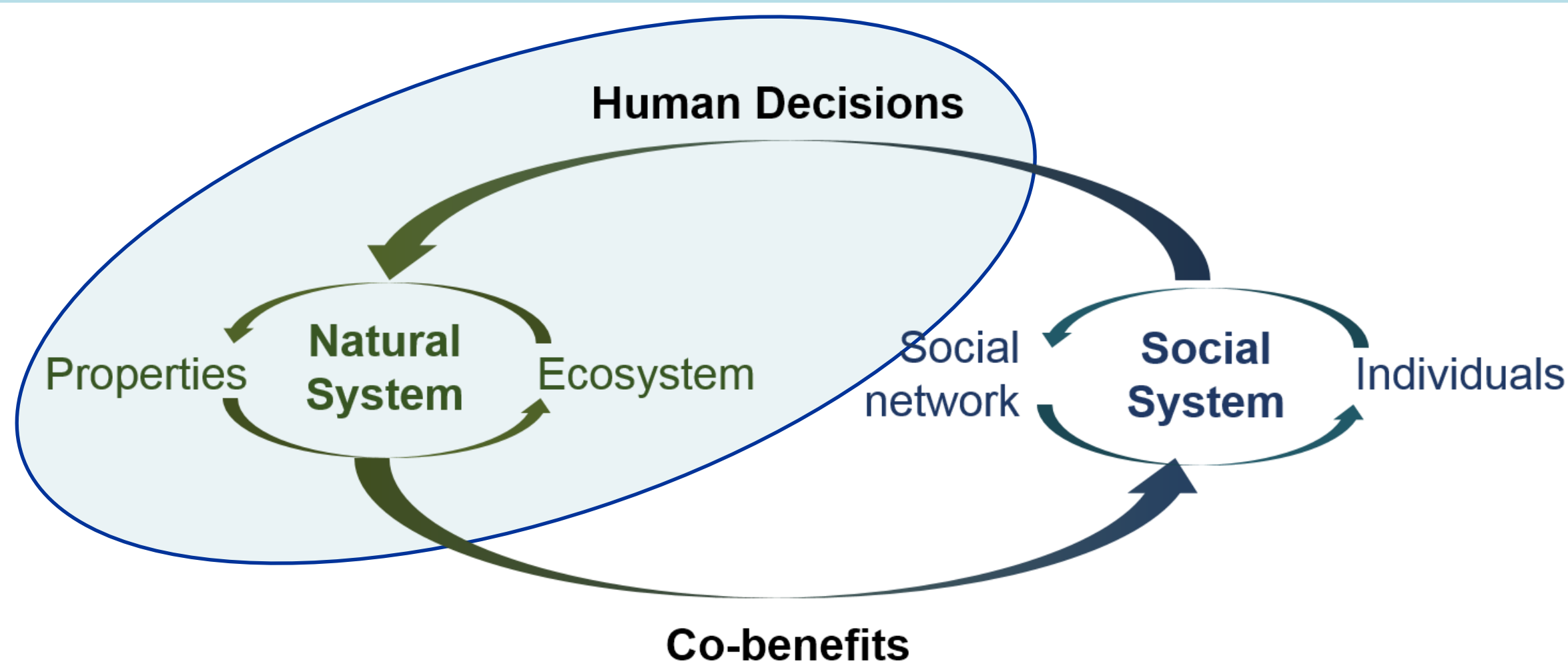
- nutrient removal
- marsh habitat
- erosion control
- sea level rise adaptation



Social considerations (in Virginia)

- preferences and values
- socio-economics
- social influence
- legislation and permits

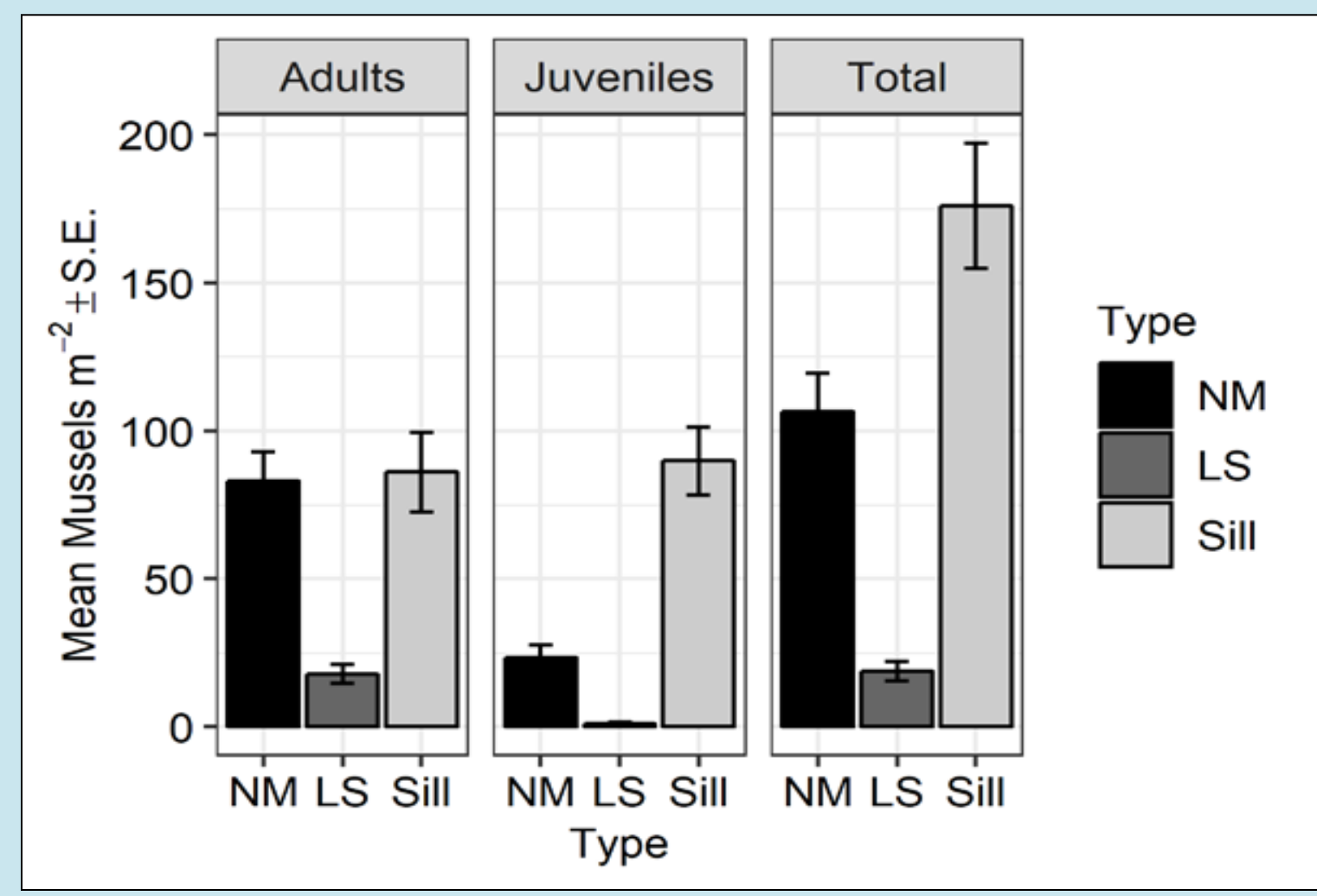
Research examples



Connectivity & Mussels

To what extent does larval connectivity influence mussel distributions?

- Mussels are not as abundant in living shoreline marshes than in natural marshes



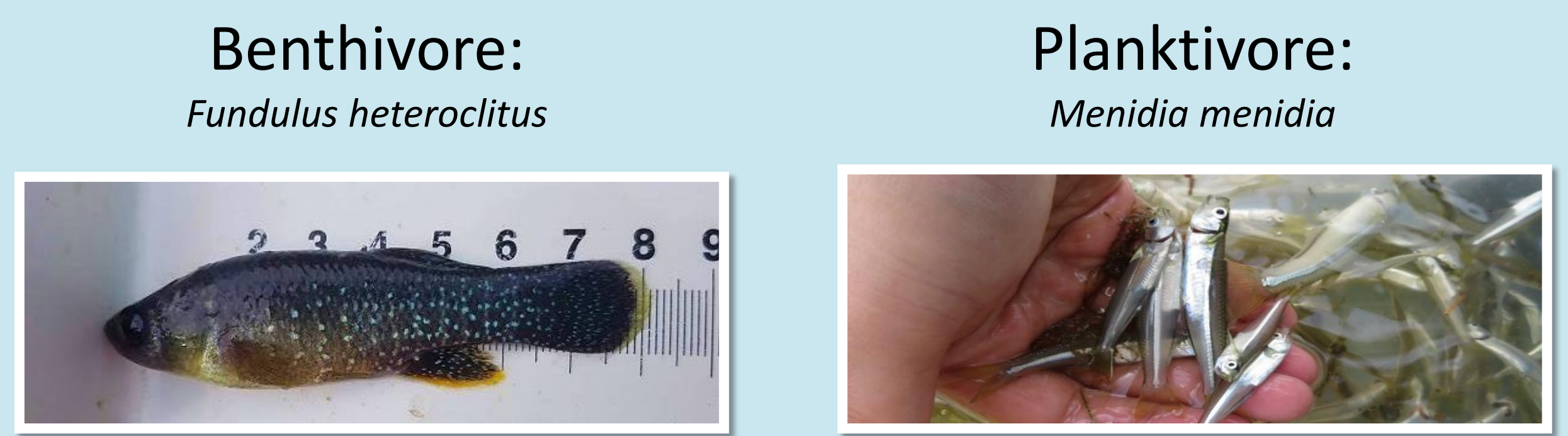
Bilkovic et al. in review

- Modeling: larval dispersal pathways for ribbed mussels (*Geukensia demissa*) under current and future scenarios

Marsh Fish Condition

Do living shorelines provide comparable habitat for marsh fish?

- Marshes are key habitat for many fishes

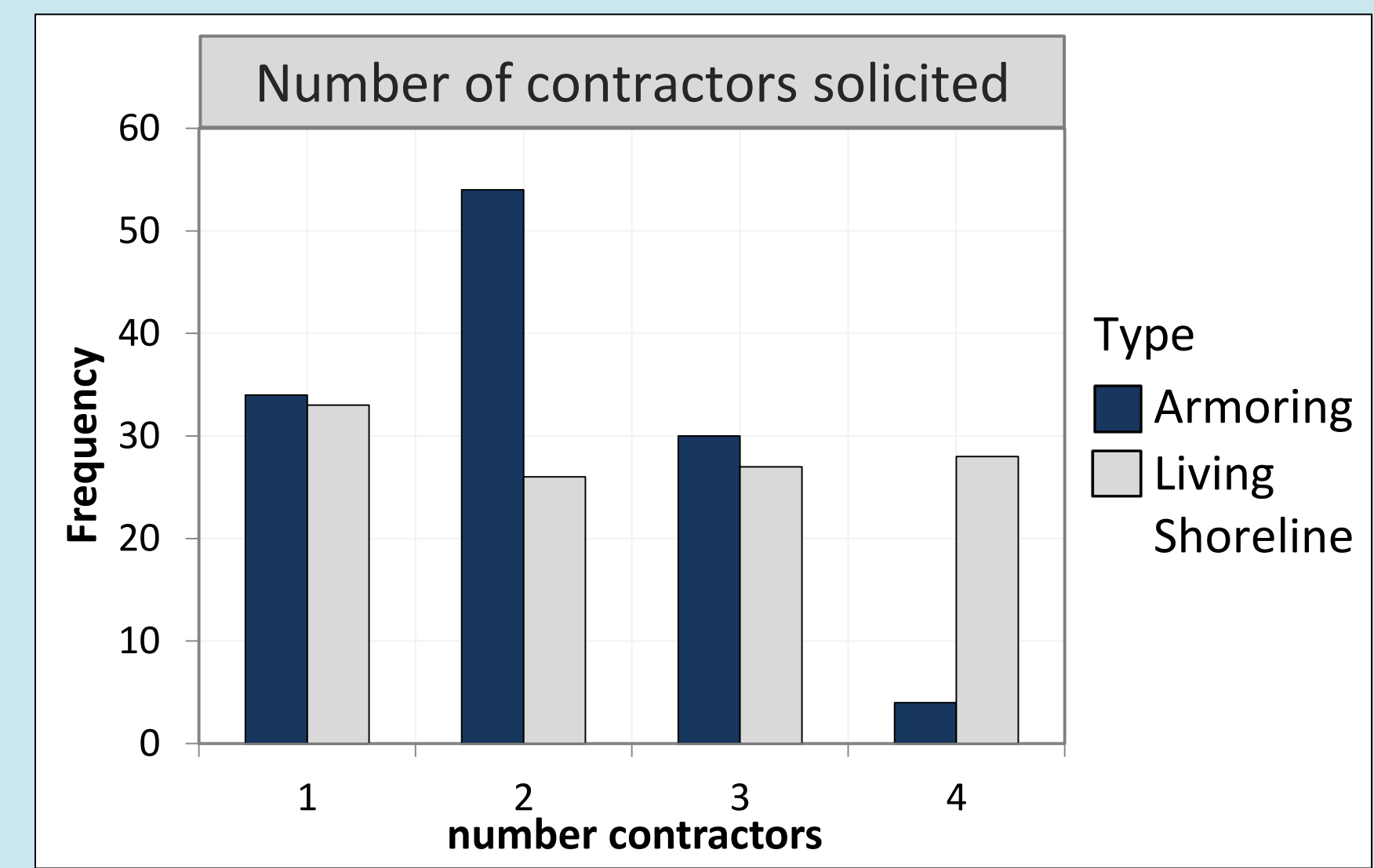


- Field work: collected fish at 13 paired sites of living shoreline and natural marshes
- Lab work: diet analysis, food availability, condition index

Property Owner Decisions

What factors influence property owners when deciding to modify their shoreline, or not?

- Social influences (contractor and social circles) likely affect shoreline decisions:



- Network analysis: assessing the extent that others influence property owner decisions

