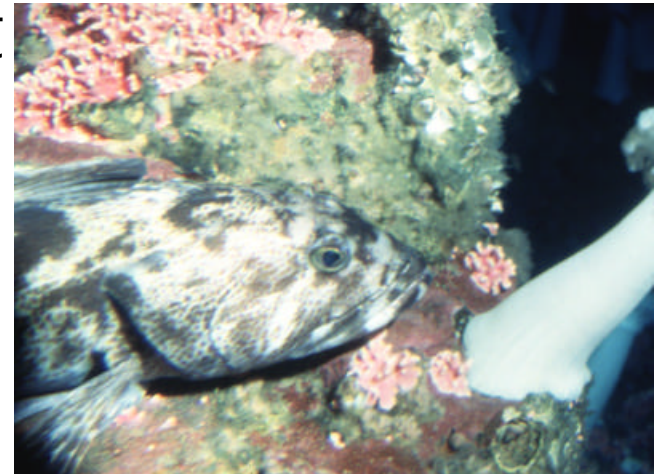


Fishing gear impacts on habitat

Alaska Region Workshop

■ Participants

- NMFS Regional Office
 - Habitat, Sustainable Fisheries, NOAA Counsel
- NMFS Alaska Fisheries Science Center
 - Auke Bay Lab, RACE, REFM Divisions
- NMFS Headquarters - Habitat
- NMFS Northwest Center
- ADF&G, UAF
- NURP, NOS, USGS



Objectives



- Review current research
- Discuss management issues
 - implementation of measures to reduce impacts
 - information needs
- USGS/NOAA initiative
- Research priorities
- 3-5 year plan
- Plans and budget for FY2000

Provisions in Magnuson-Stevens Act



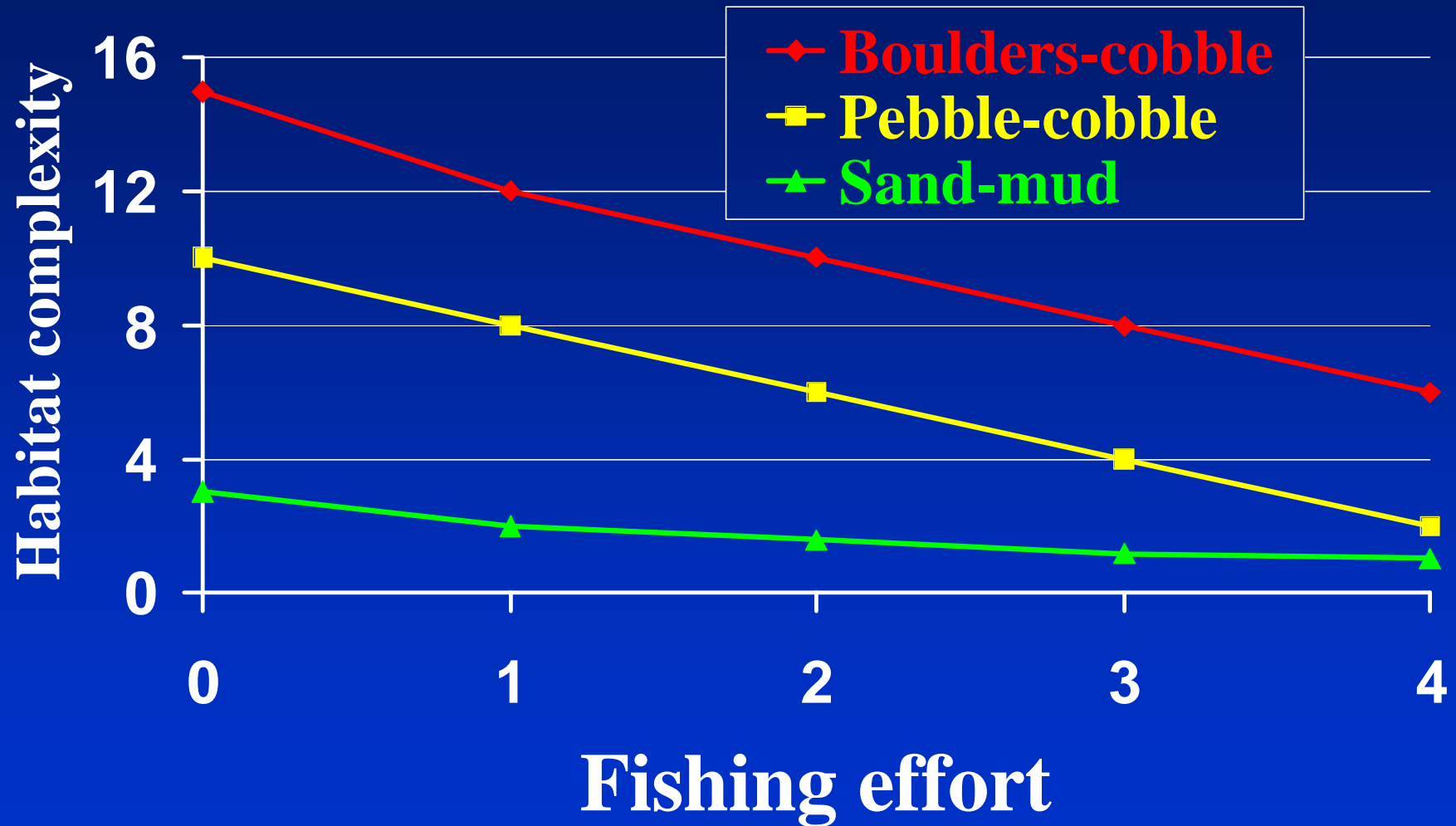
- “Describe and identify EFH for the fishery....., minimize to the extent practicable adverse effects on such habitat caused by fishing”
- Interim final rules
 - FMP must contain assessment of adverse effects of all fishing gear
 - identify habitats particularly vulnerable to spec. gear
 - options for managing adverse impacts
 - gear restrictions
 - time/area closures
 - harvest limits
 - HAPC
 - lots more!!!

Impacts of fishing gear



- Species composition and diversity
- Reduction in habitat complexity
- Community shift
- Recovery is variable
 - depends on habitat type
 - life history strategy
 - natural disturbance regime
- Impacts on productivity and managed species not well understood

Gear impacts on habitat complexity



Research accomplishments

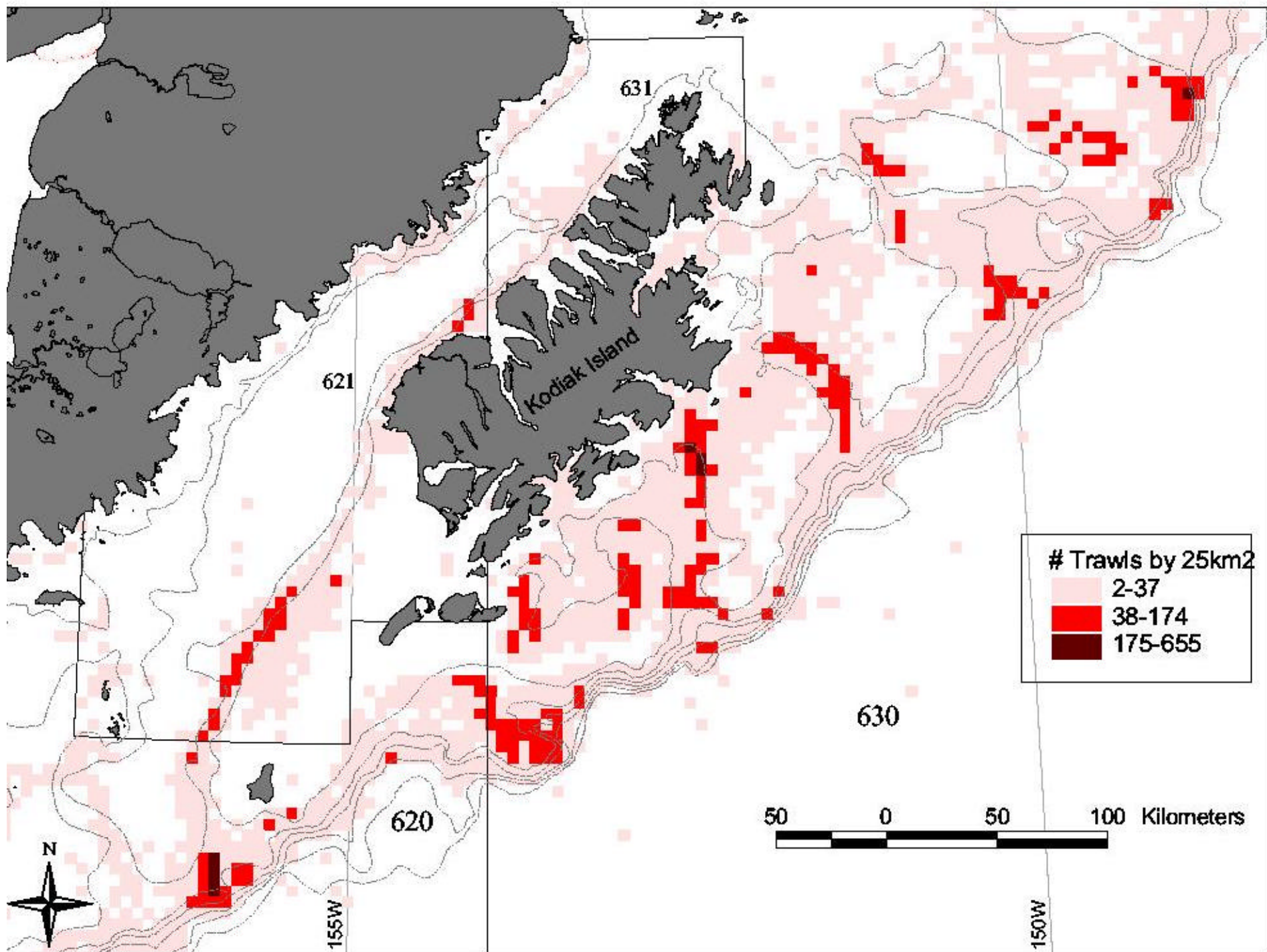


- Experimental trawling EGOA - hard bottom tire gear
- Retrospective mapping of trawling
- Development of methods
 - video analysis
 - trawl positioning
- Chronic trawling EBS
- Gorgonian corals
- Technology evaluation
 - QTC view - habitat mapping
 - laser line scan
- Two workshops

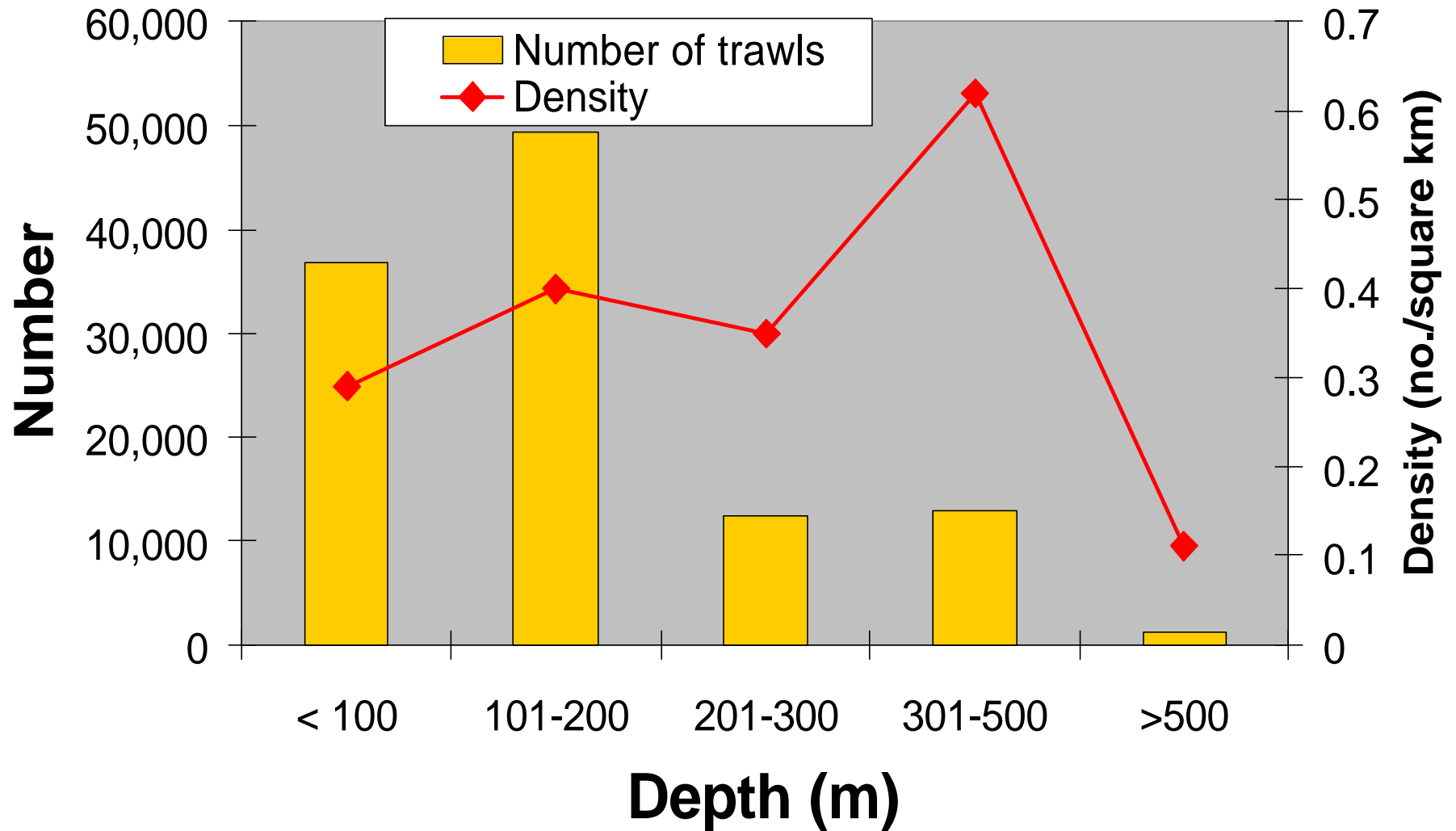
Studies in progress



- Kodiak region
 - Compare closed areas with open areas
- Retrospective analysis of benthic community
- Coral
 - Aleutians Seguam Pass
 - Ageing Coral and Seawhips
 - Distribution and abundance - HAPC

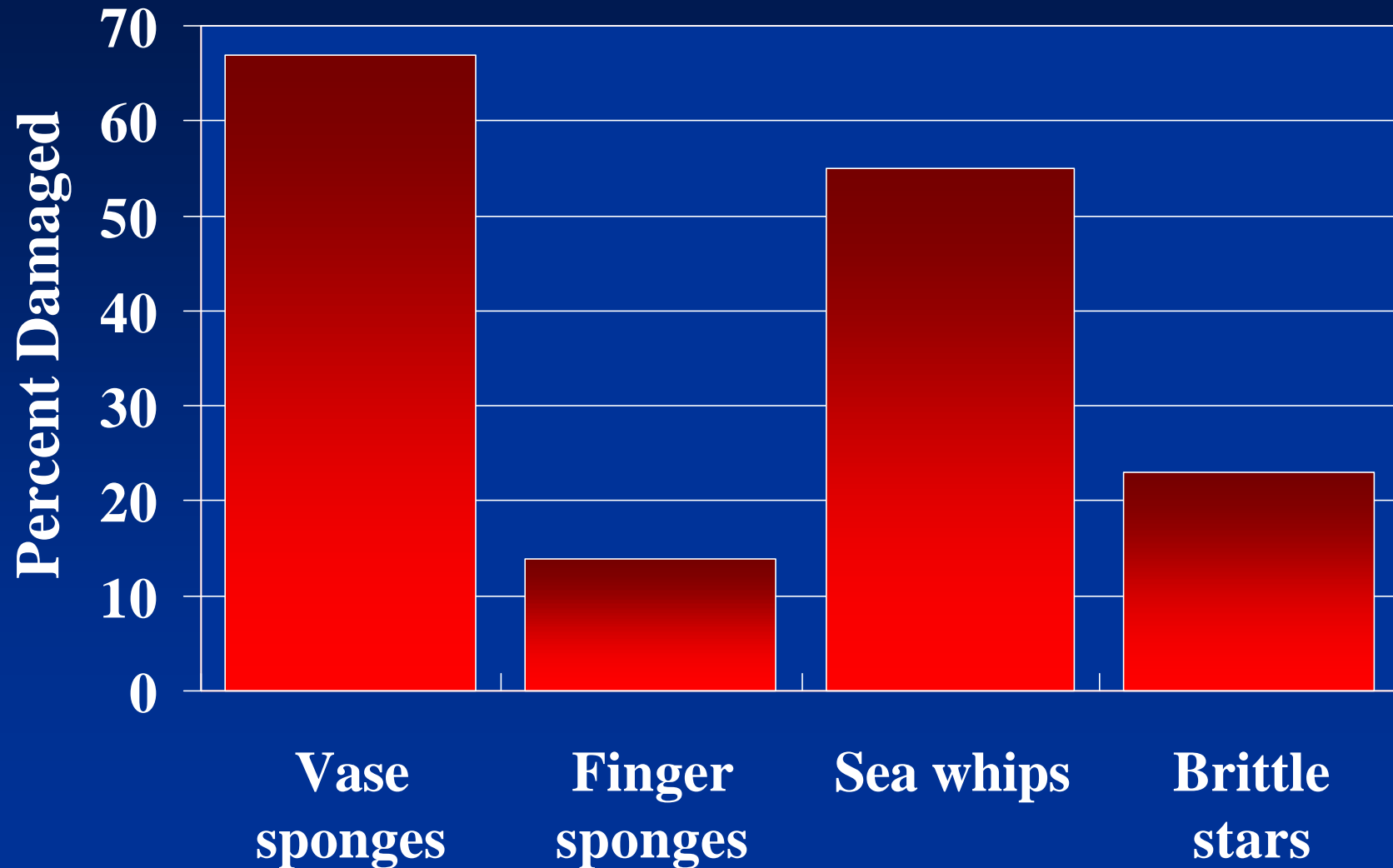


Gulf of Alaska - bottom trawl effort

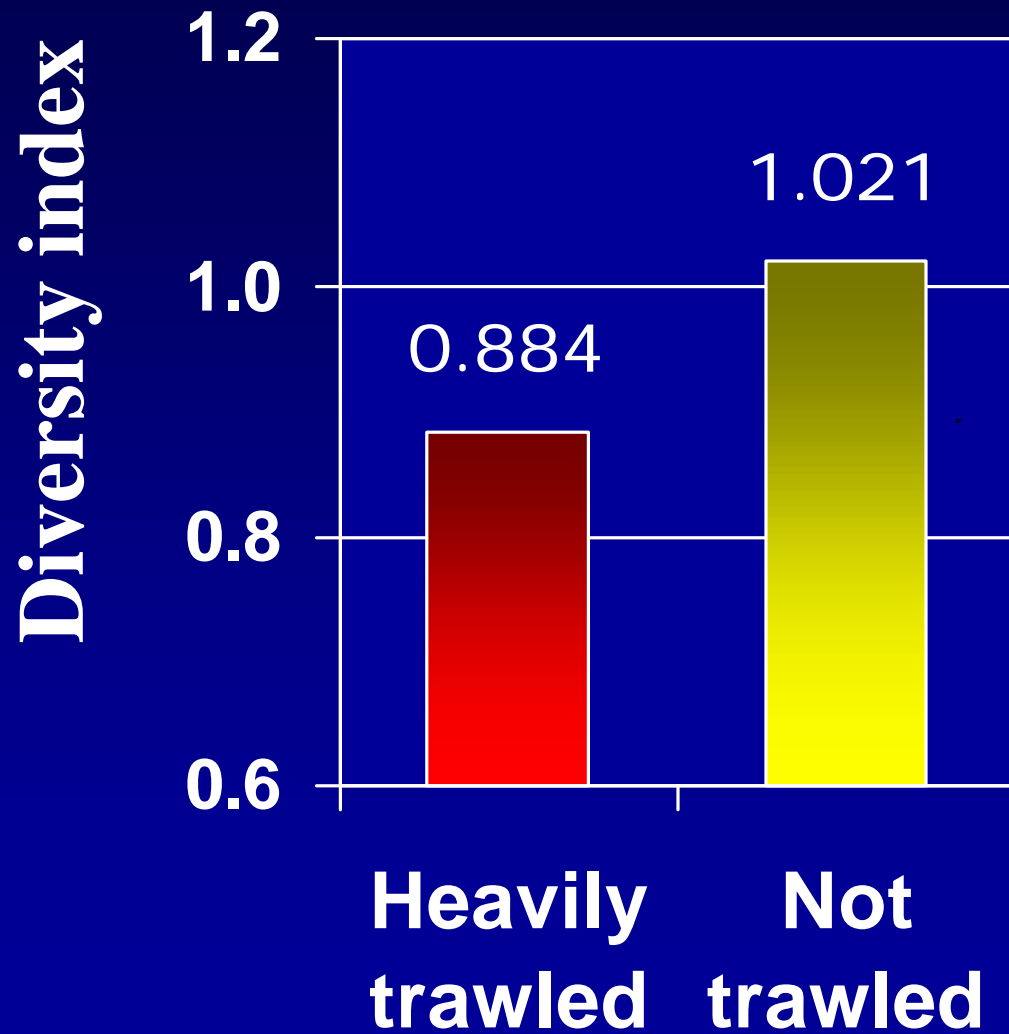


Trawl Damage

Hard bottom - single pass of trawl



Species diversity - Eastern Bering Sea



- Heavily trawled sites

- Greater dominance of seastar, *Asterias amurensis*

- non-motile inverts (sponges, anenomes, soft corals) patchy distribution

Short-term plans - new studies



- Trawl impacts EBS
 - Acute effects and recovery
 - Soft bottom/shallow
- Field observations of proposed closure areas - coral HAPC*
- Sled testing
- Effects on soft bottom with sea-whips*
 - deep water - Kodiak

*tentative - depends on funding

Future research

- Role of seafloor on Pop'n dynamics
 - i.e., role of epifauna in juvenile survival
- Other gears - LL, Pots, Dredge
- Examine habitat in major fishing grounds
 - Mapping of Sea floor & Habitat in major fishing grounds
- Evaluation of measures to reduce impacts
 - Monitoring of closures