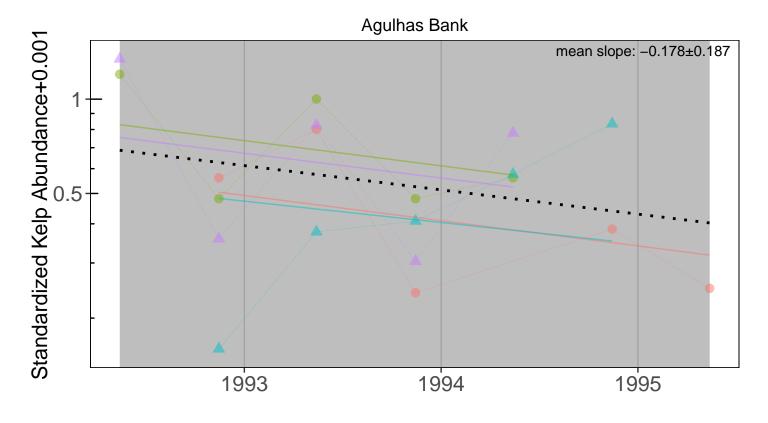


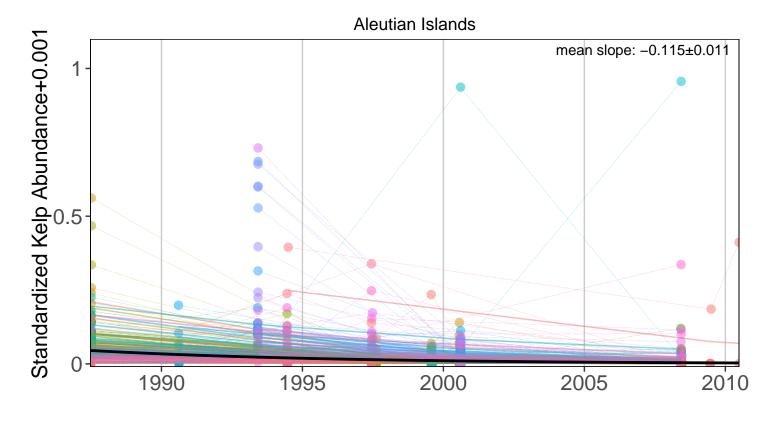
Study

■ Levitt\_etal\_2002 ▲ SA\_Gansbaai\_kelp\_data



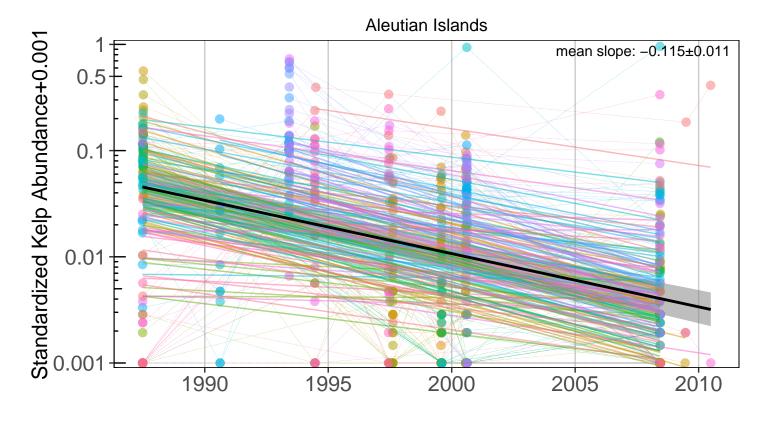
Study

Levitt\_etal\_2002 
SA\_Gansbaai\_kelp\_data

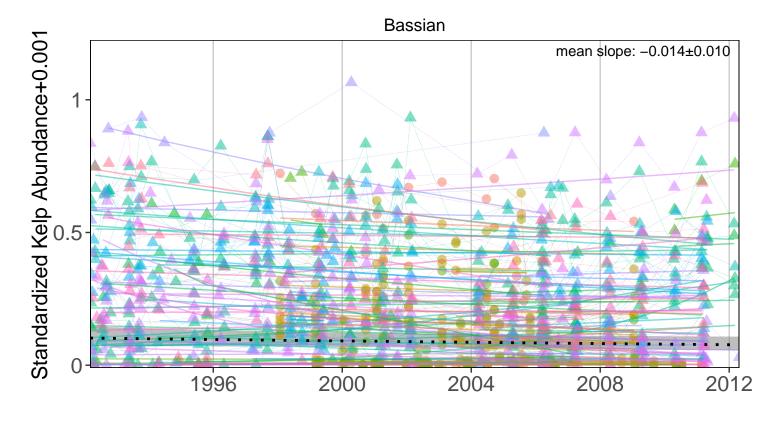


Study

Estes\_NPRB



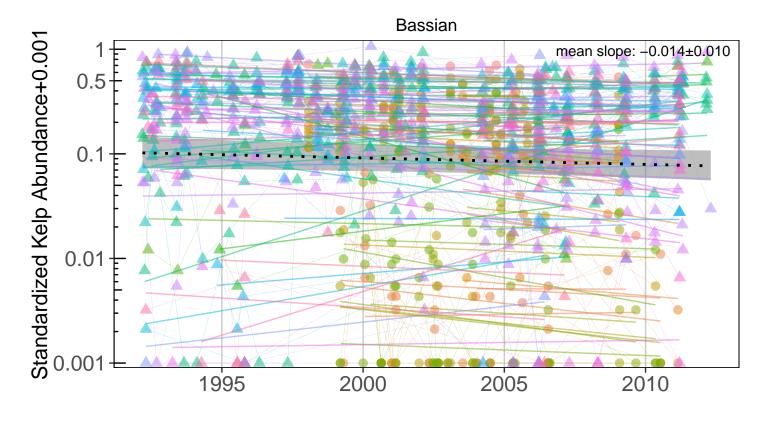
Study
• Estes\_NPRB



Study

• KelpCover\_Australia\_Victoria 

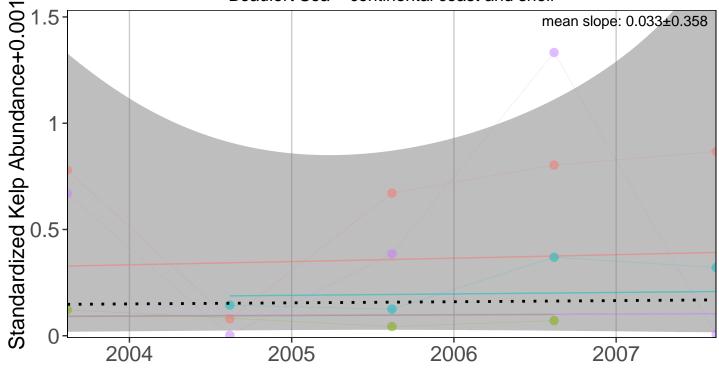
KelpCover\_Temperate\_Australia



Study

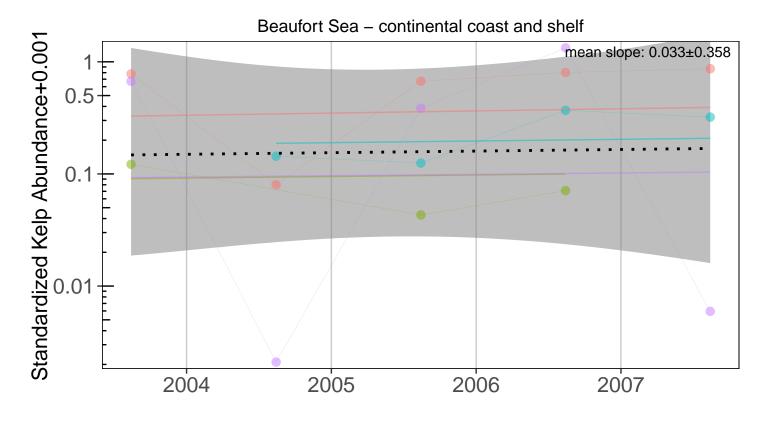
• KelpCover\_Australia\_Victoria • KelpCover\_Temperate\_Australia

## Beaufort Sea - continental coast and shelf



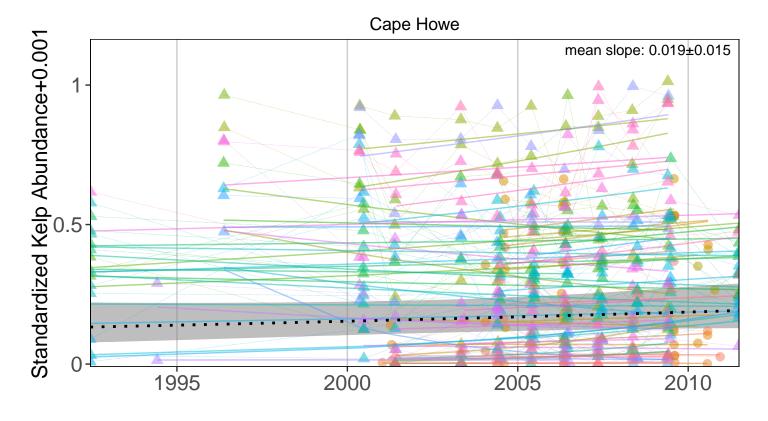
Study

Konar\_Beaufort\_Sea



Study

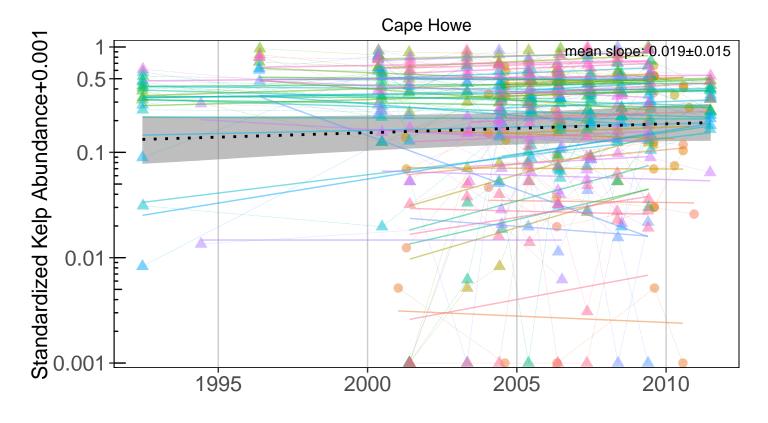
• Konar\_Beaufort\_Sea



Study

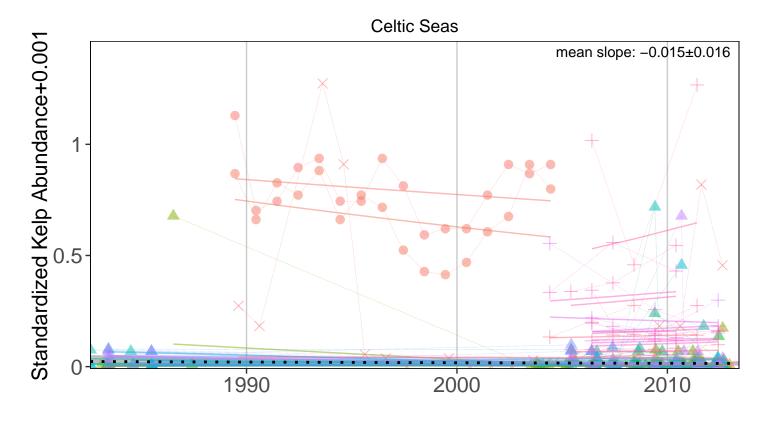
• KelpCover\_Australia\_Victoria 

KelpCover\_Temperate\_Australia



Study

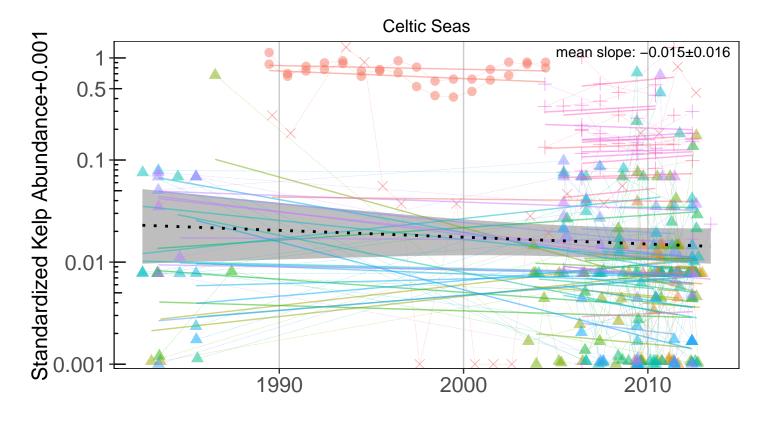
• KelpCover\_Australia\_Victoria • KelpCover\_Temperate\_Australia



Study

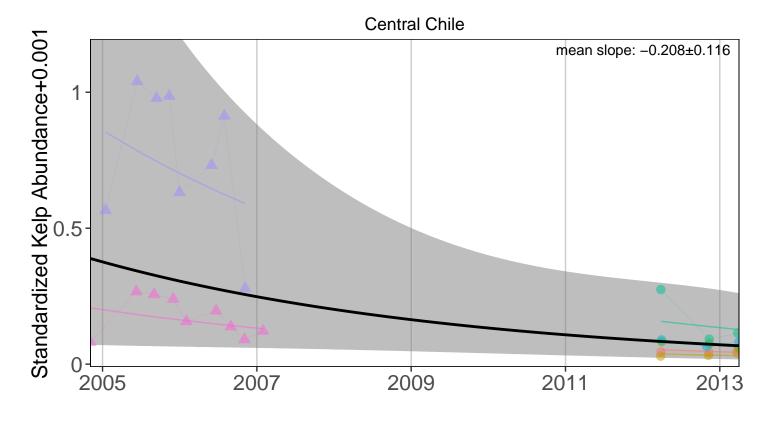
■ Davoult\_etal\_2011 + REBENT\_Brittany\_NW\_France

■ Northern\_Ireland\_Summary × Trowbridge\_etal\_2013



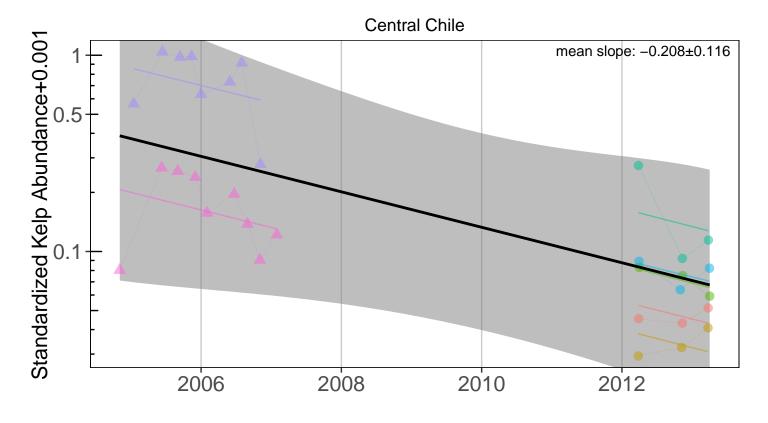
## Study

- Davoult\_etal\_2011 + REBENT\_Brittany\_NW\_France
- ▲ Northern\_Ireland\_Summary × Trowbridge\_etal\_2013



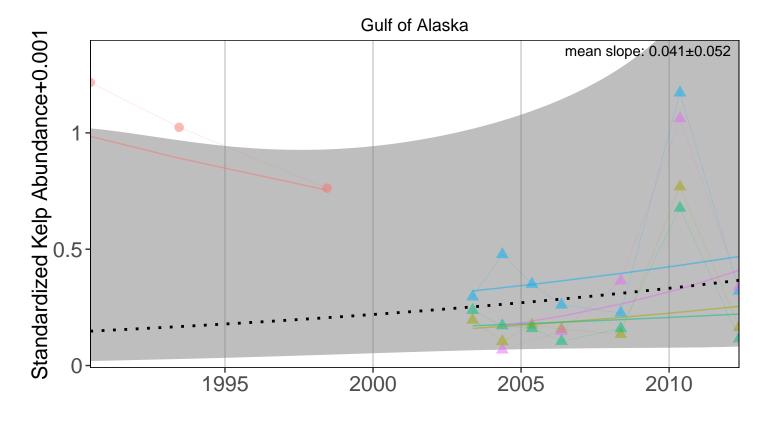
Study

Central\_Chile\_Fondecyt A Northern\_Chile

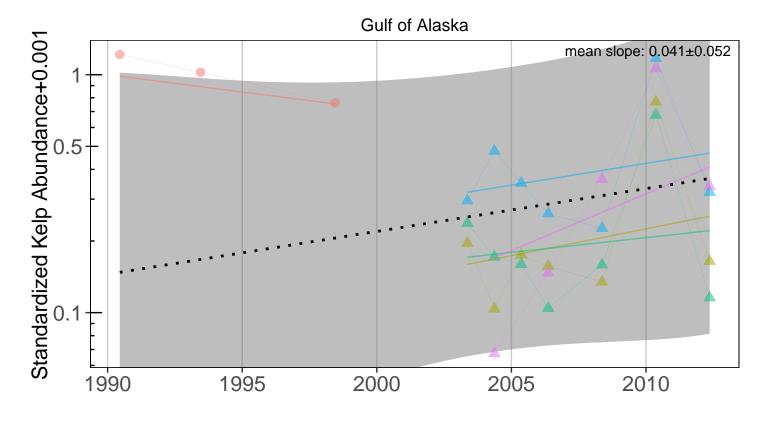


Study

Central\_Chile\_Fondecyt A Northern\_Chile

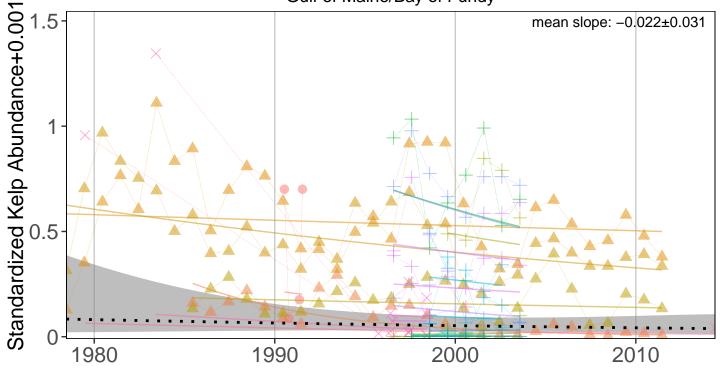


Study Dean\_etal\_2000 ▲ konar\_GulfOfAlaska



Study ■ Dean\_etal\_2000 ▲ konar\_GulfOfAlaska

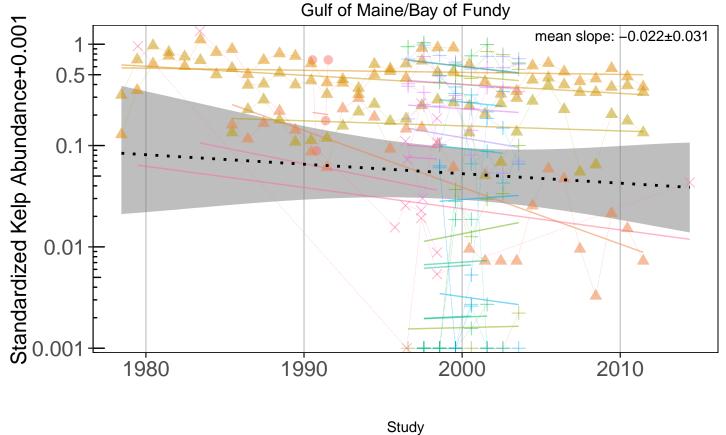
## Gulf of Maine/Bay of Fundy



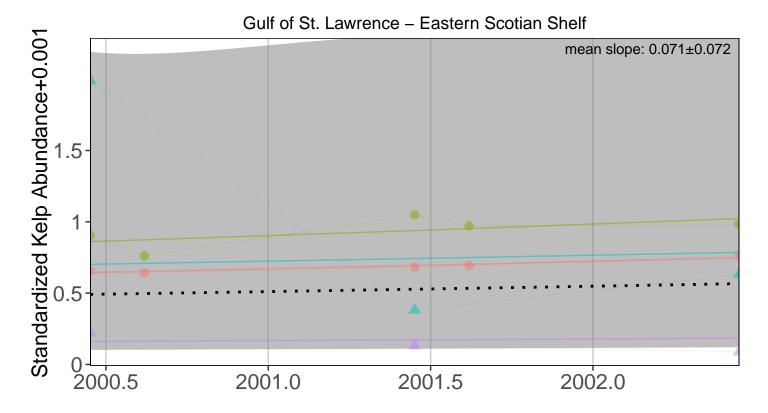
Study

■ Lambert\_etal\_1992 + steneck\_gom

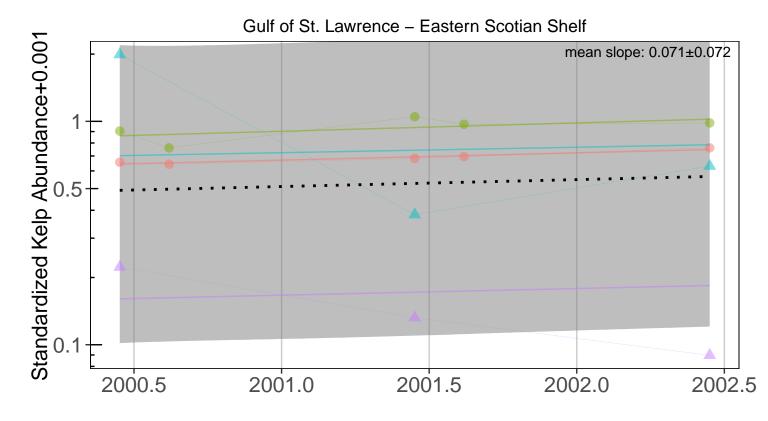
■ Normandeau × witman\_gom



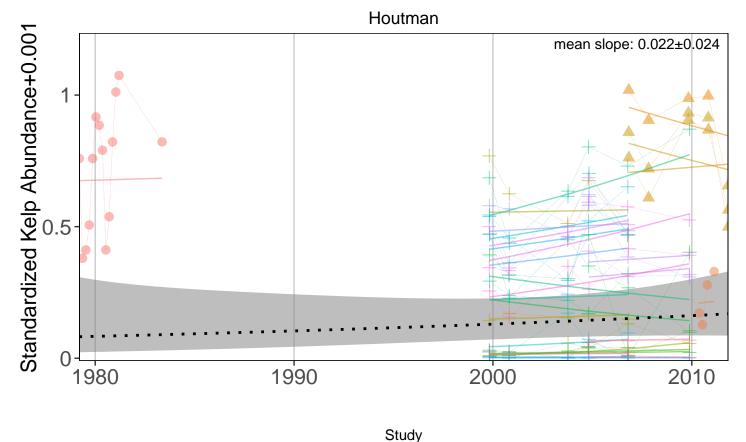
Lambert\_etal\_1992 + steneck\_gom
 Normandeau × witman\_gom



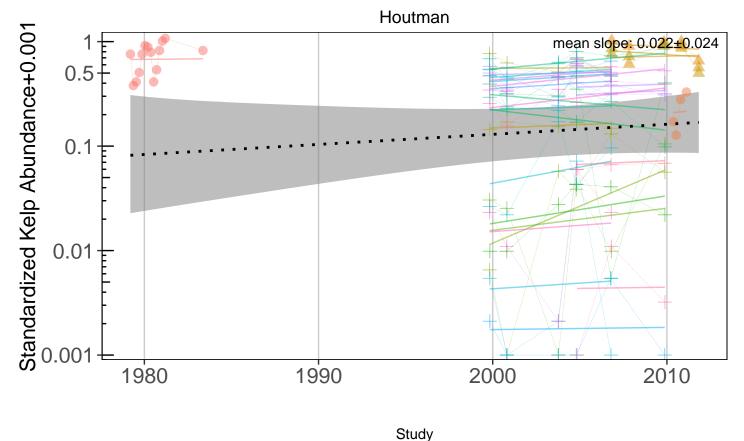
Study ▶ Gagnon\_atal\_2005 ▲ Gagnon\_etal\_2004



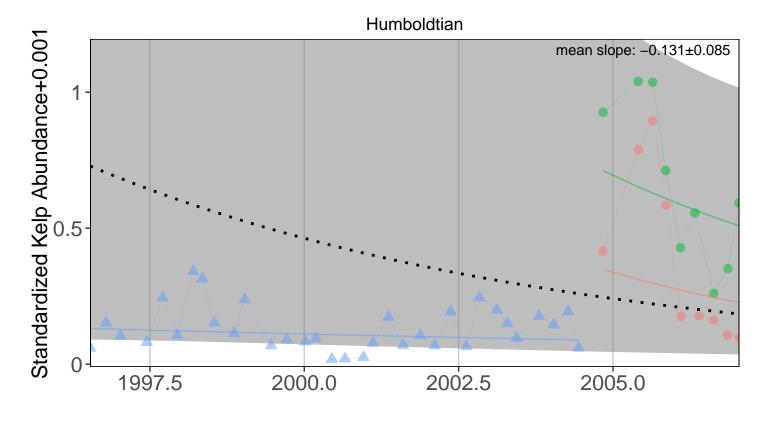
Study ▶ Gagnon\_atal\_2005 ▲ Gagnon\_etal\_2004



Aus\_Marmion + KelpCover\_Temperate\_Australia
 Australia\_WA\_Wernberg

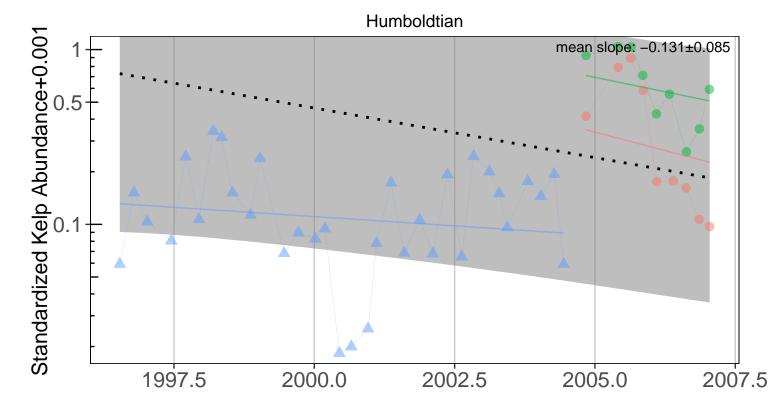


Aus\_Marmion + KelpCover\_Temperate\_AustraliaAustralia\_WA\_Wernberg



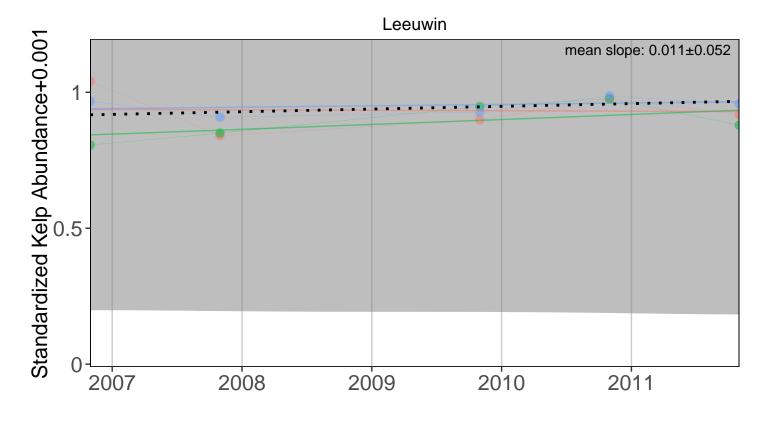
Study

Northern\_Chile 
Vasquez\_etal\_2006



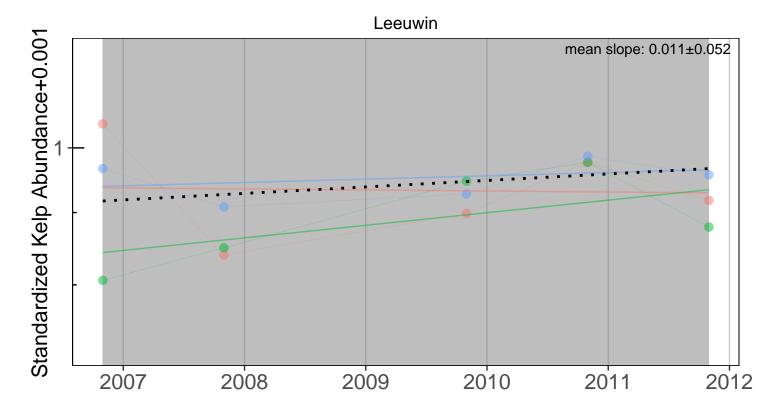
Study

■ Northern\_Chile ▲ Vasquez\_etal\_2006



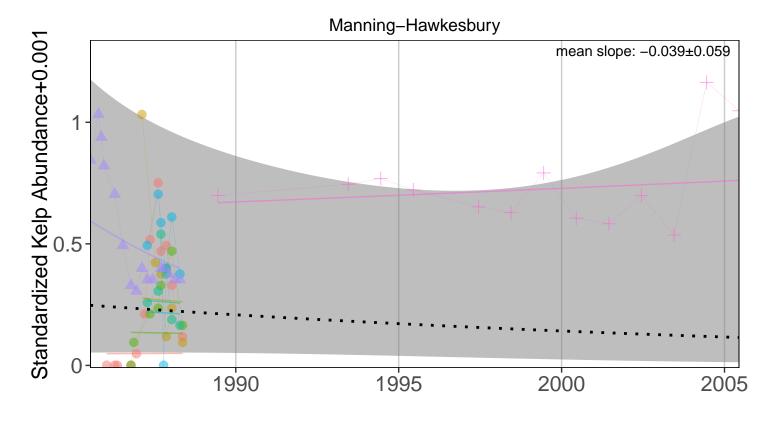
Study

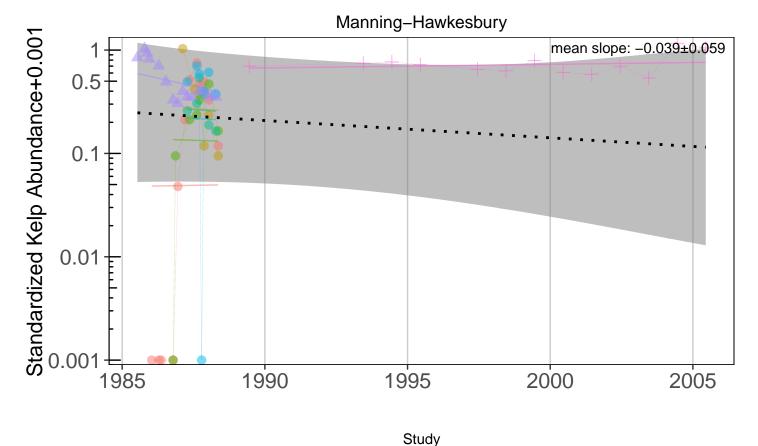
• Australia\_WA\_Wernberg



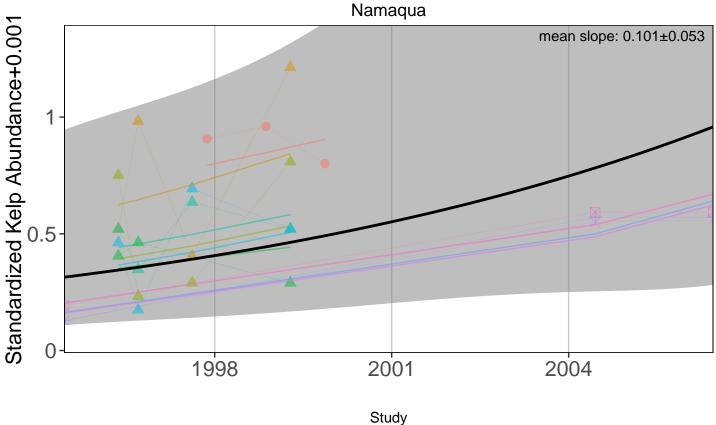
Study

• Australia\_WA\_Wernberg





Andrew\_1991 + Ettinger\_etal\_2008
 Andrew\_Jones\_1990



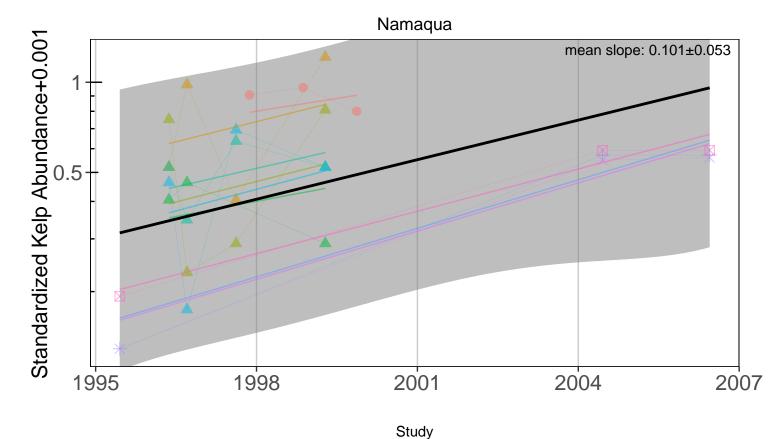
Anderson\_etal\_ 2006

▲ Pulfrich\_etal\_2003

+ South\_Africa\_Kwaaibaii

× South\_Africa\_Mauritzbaai

South\_Africa\_Pump\_House



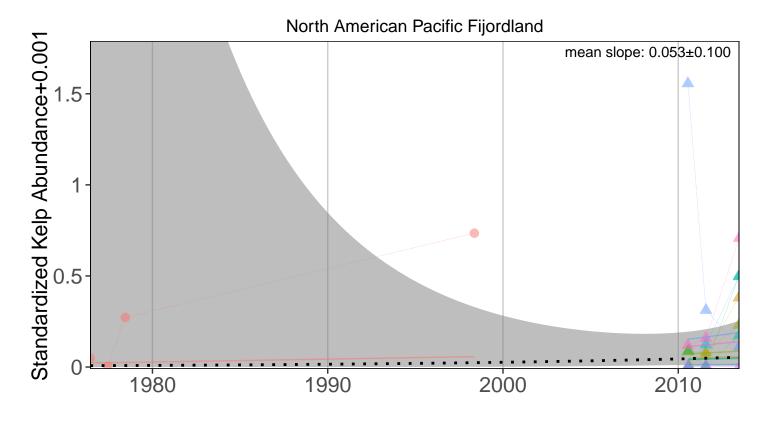
Anderson\_etal\_ 2006

▲ Pulfrich\_etal\_2003

+ South\_Āfrica\_Kwaaibaii

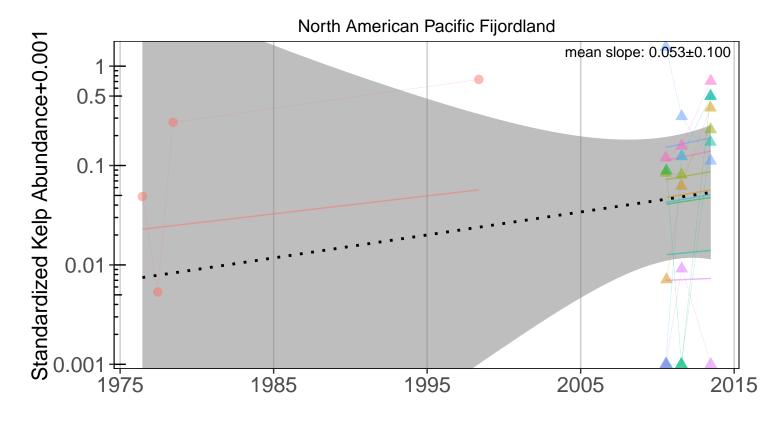
× South\_Africa\_Mauritzbaai

South\_Africa\_Pump\_House

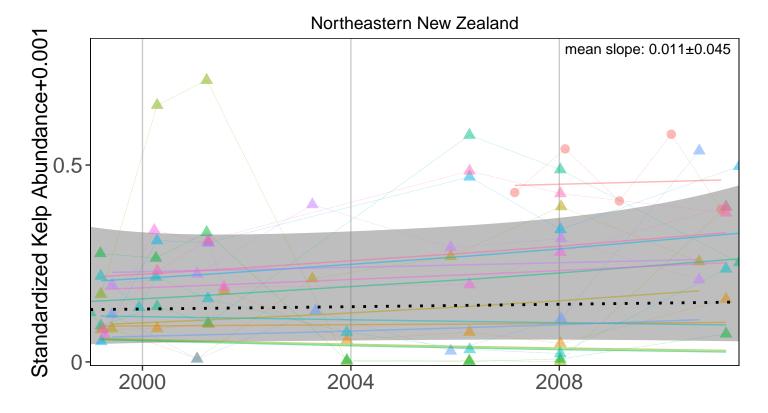


Study

■ Estes\_Duggins\_AK ▲ Haida\_Gwaii

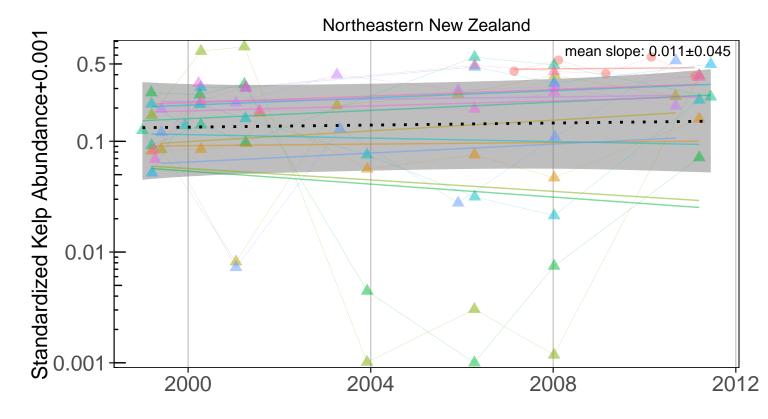


Study
■ Estes\_Duggins\_AK ▲ Haida\_Gwaii



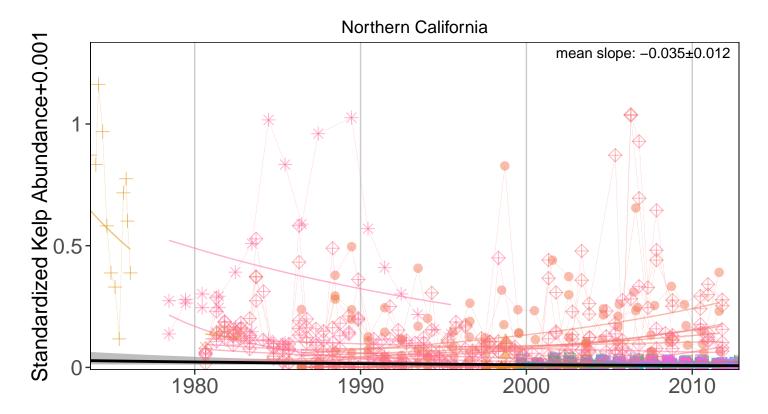
Study

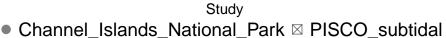
New\_Zealand\_Hauraki\_Gulf A Northern\_New\_Zealand



Study

New\_Zealand\_Hauraki\_Gulf A Northern\_New\_Zealand





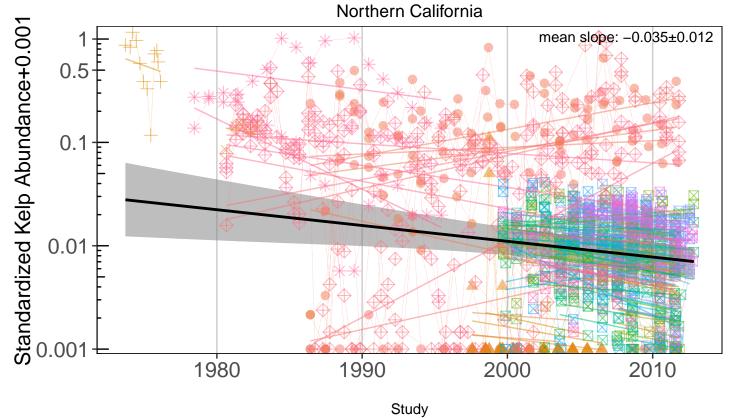
\* Schiel\_etal\_2004

**♦ SNI** 

▲ Edwards\_baja

⊢ Gerard\_ 1976

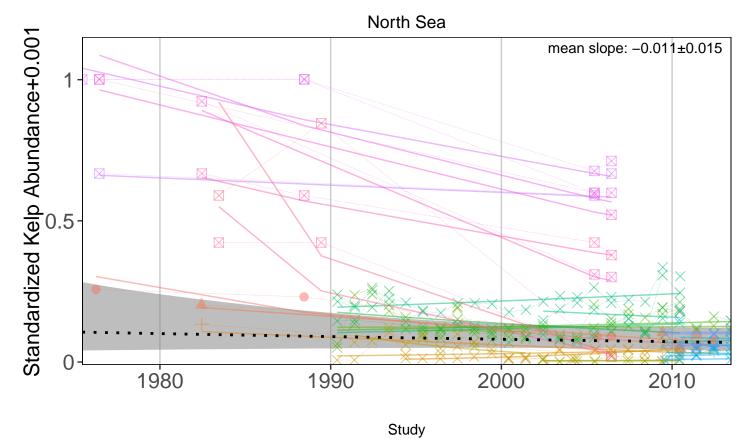
× Harrold\_Reed\_1985



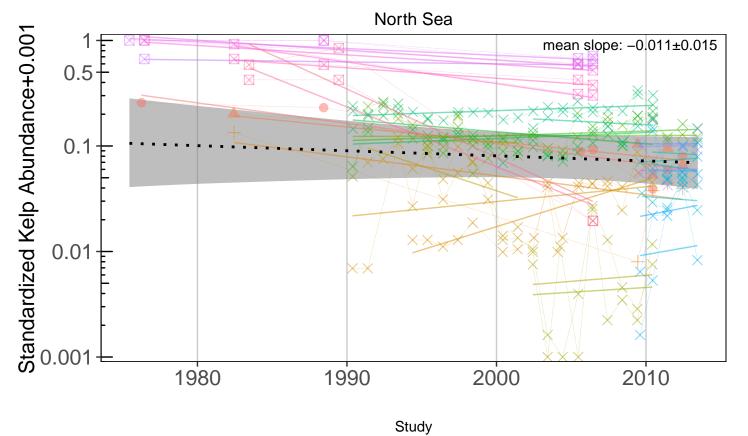
- Channel\_Islands\_National\_Park 

  PISCO\_subtidal
- ▲ Edwards\_baja
- + Gerard\_ 1976
- × Harrold\_Reed\_1985

- \* Schiel\_etal\_2004
  - $\oplus$  SNI

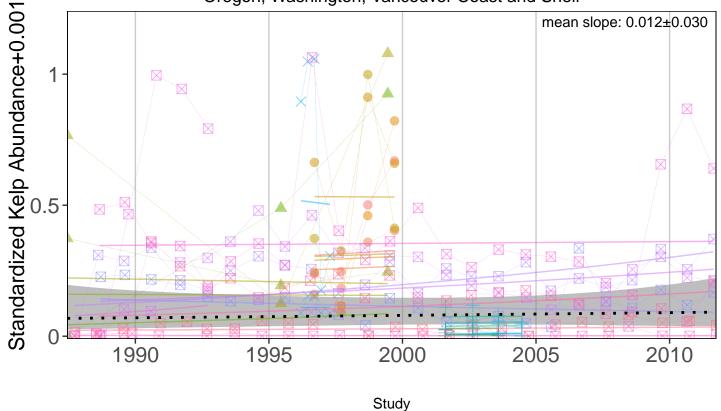


norway\_inner\_coast\_norderhaug-Ei × Norway\_monitoring\_kelp\_data
 norway\_inner\_coast\_norderhaug-Gr ⋈ norway\_moy\_christie\_with\_Åsen\_2
 + norway\_inner\_coast\_norderhaug-No

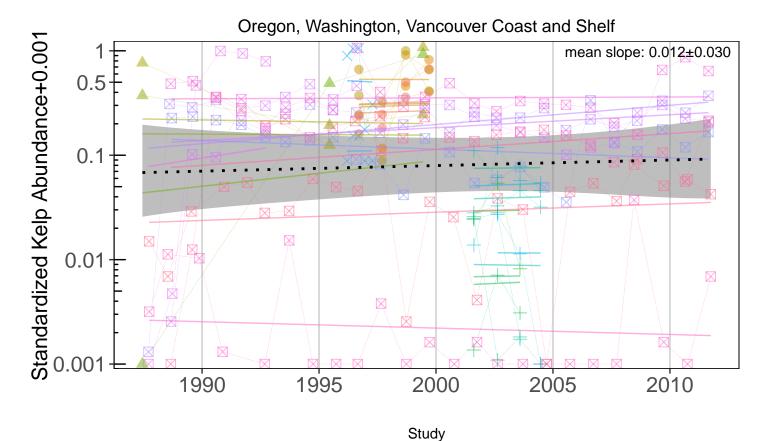


norway\_inner\_coast\_norderhaug-Ei × Norway\_monitoring\_kelp\_data
 norway\_inner\_coast\_norderhaug-Gr ⋈ norway\_moy\_christie\_with\_Åsen\_2
 + norway\_inner\_coast\_norderhaug-No

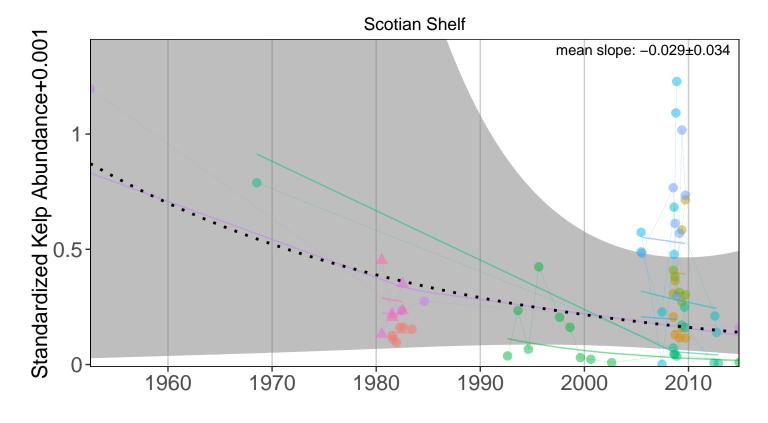
## Oregon, Washington, Vancouver Coast and Shelf



- Fox\_etal\_1999 × Shaffer\_2000
- ▲ Kvitek\_etal\_ 2001 ☑ VancouverIsland-JaneWatson
- + PISCO\_oregon

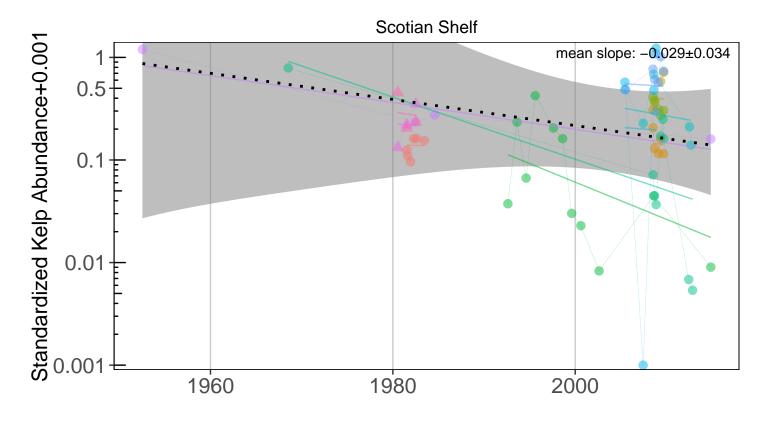


- Fox\_etal\_1999 × Shaffer\_2000
- ▲ Kvitek\_etal\_ 2001 ☑ VancouverIsland-JaneWatson
- + PISCO\_oregon

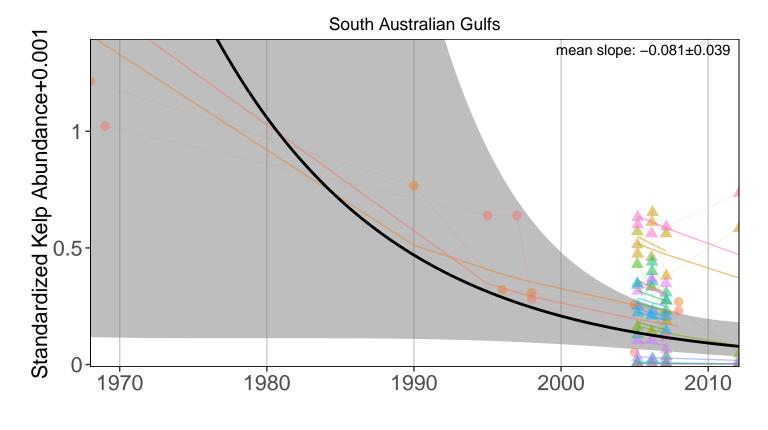


Study

■ Nova\_Scotia ▲ Smith\_ 1985

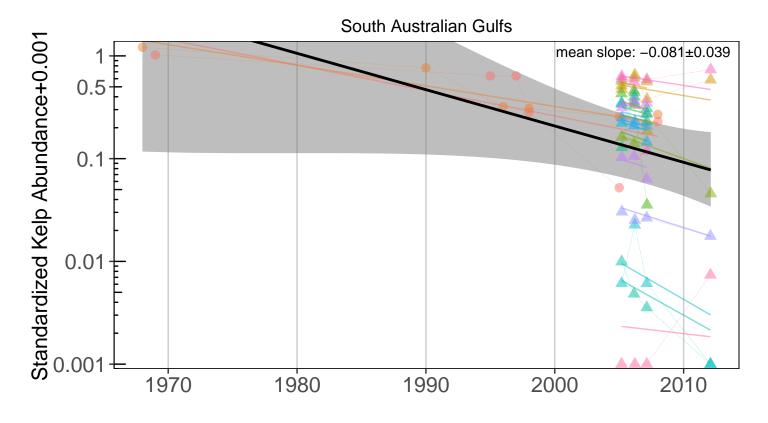


Study
■ Nova\_Scotia ▲ Smith\_ 1985



Study

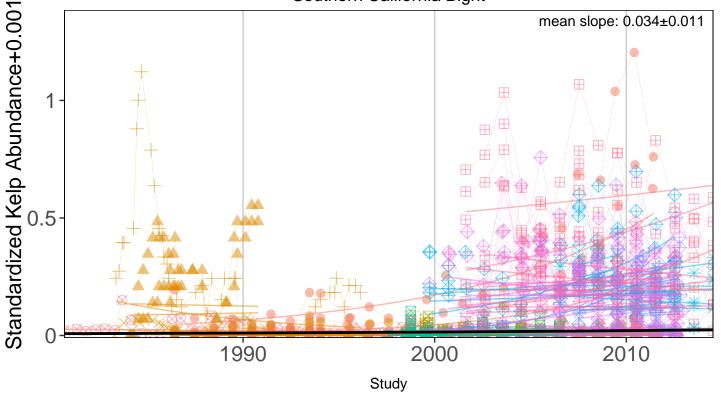
autralia\_connell\_canopyLoss 
KelpCover\_Temperate\_Australia



Study

autralia\_connell\_canopyLoss KelpCover\_Temperate\_Australia

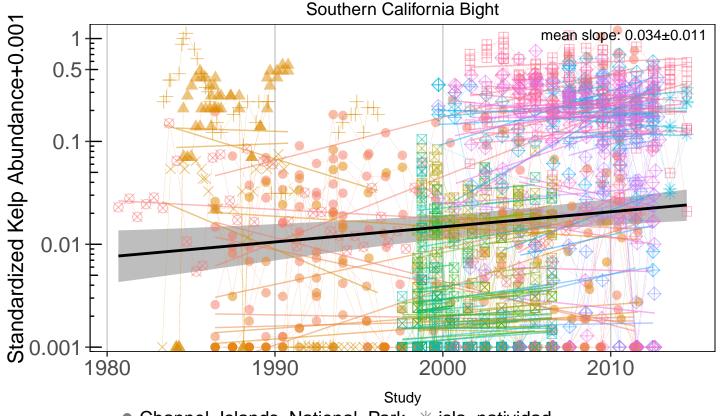
## Southern California Bight



- Channel\_Islands\_National\_Park \* isla\_natividad
- + Dayton\_etal\_1999\_Laminaria 

  ⊞ sbc\_lter\_longterm\_community
- × Dayton\_etal\_1999\_Pterygophora 

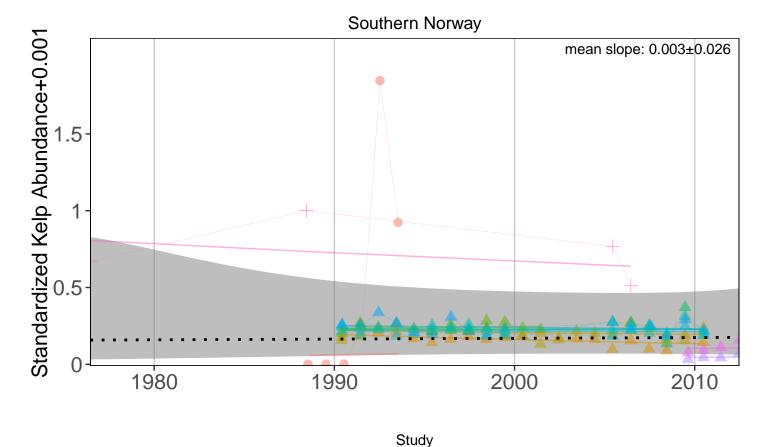
  SNI
- □ Edwards\_baja



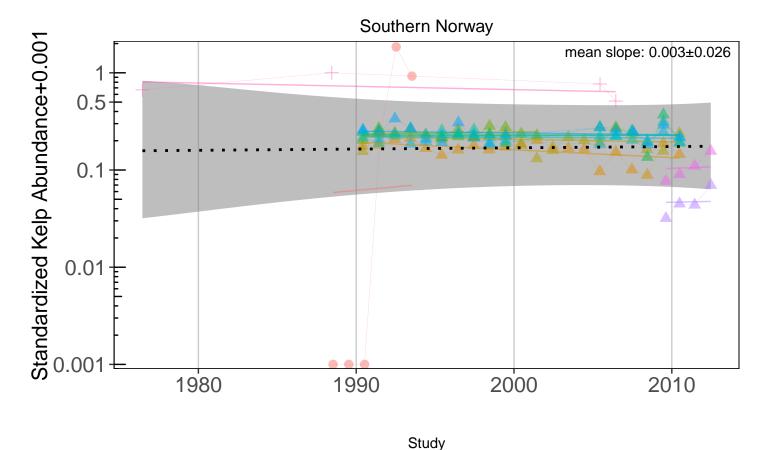
- Channel\_Islands\_National\_Park \* isla\_natividad

- × Dayton\_etal\_1999\_Pterygophora 

  SNI
- ⊠ Edwards\_baja

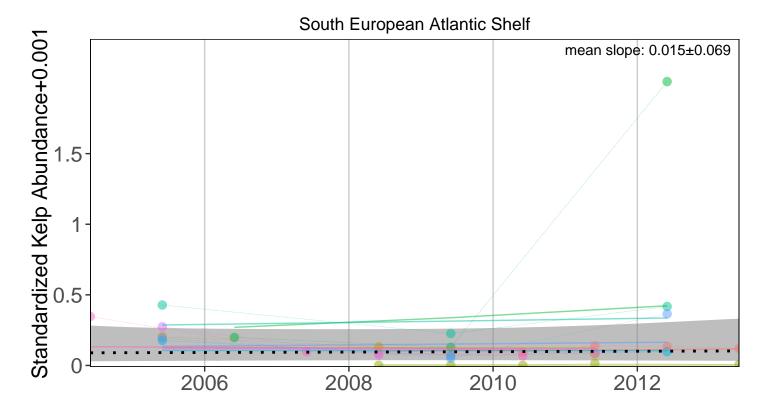


- Leinaas\_Christie\_1996 + norway\_moy\_christie\_with\_åsen\_2
- Norway\_monitoring\_kelp\_data



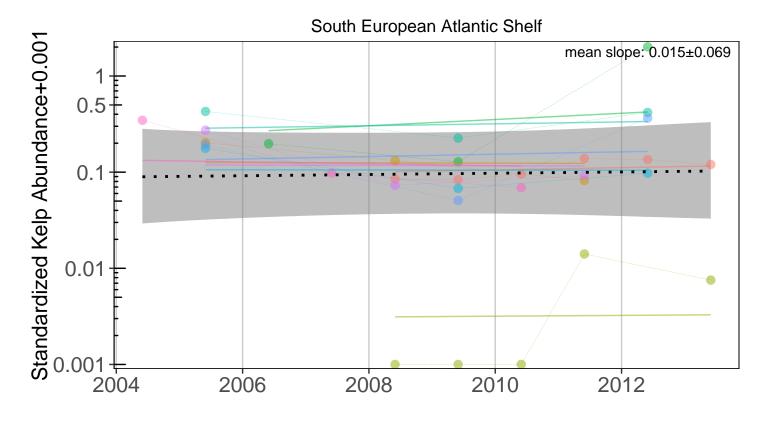
+ norway\_moy\_christie\_with\_Åsen\_2 Leinaas\_Christie\_1996

Norway\_monitoring\_kelp\_data

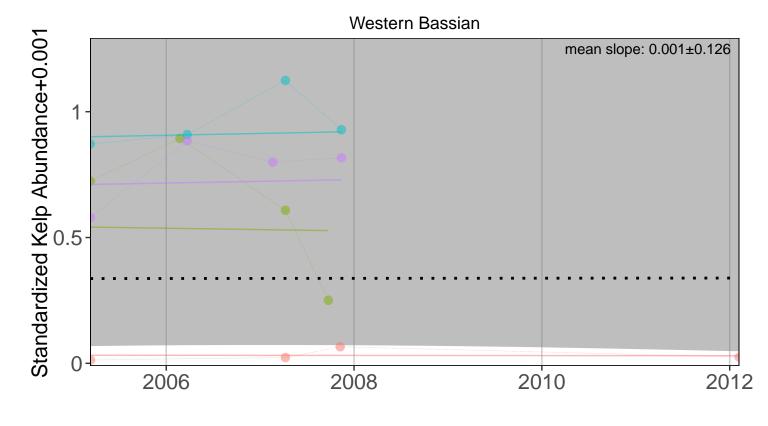


Study

REBENT\_Brittany\_NW\_France

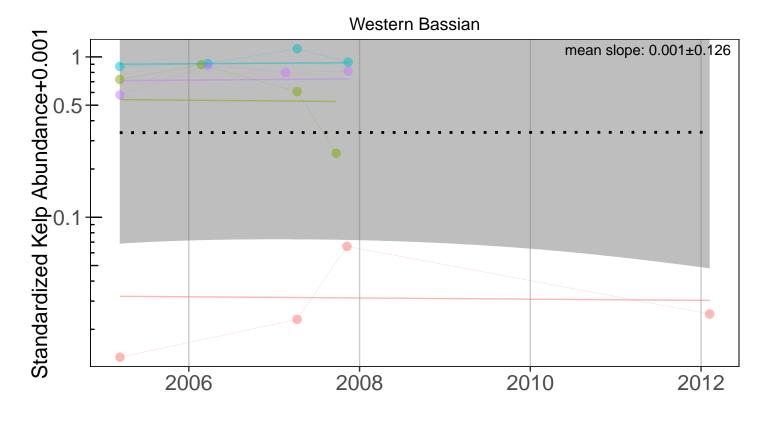


Study
REBENT\_Brittany\_NW\_France



Study

• KelpCover\_Temperate\_Australia



Study

• KelpCover\_Temperate\_Australia