

Does the Northern Shrimp disappear from our local fjords!?

Fishing with shrimp traps to check shrimp population

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The Northern Shrimp (*Pandalus borealis*) population is declining in the Norwegian sea and Skagerrak and has completely disappeared from many trawling fields at Vestlandet. For this reason, we are investigating the shrimp populations in fjords near the Marine biological station (MBS) at the University of Bergen.

1. Locations

We took samples from Lysefjorden, Fanafjorden and Raunefjorden and a location near Trollsøy. These locations were decided with the help of old trawl maps found at MBS.

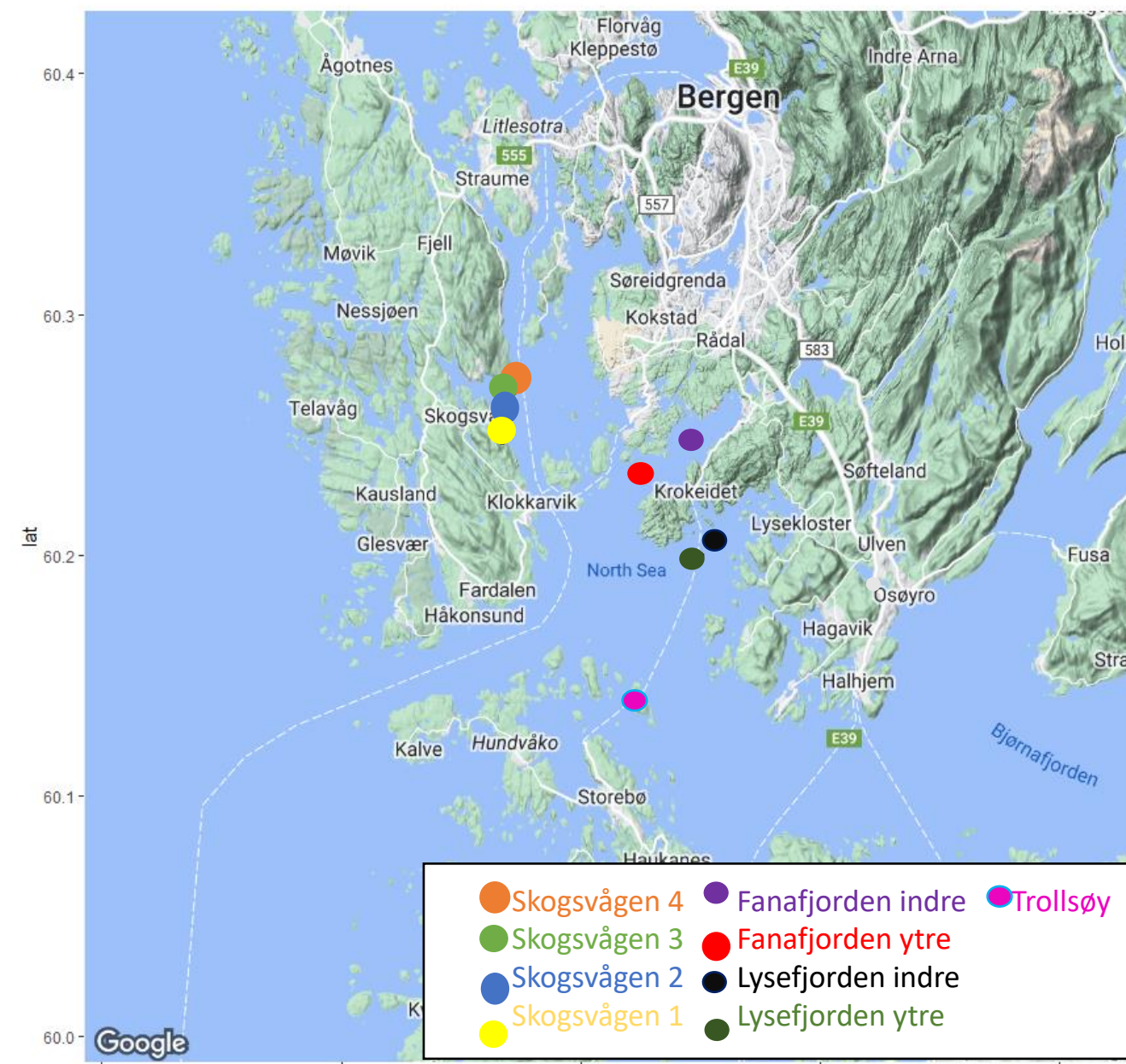
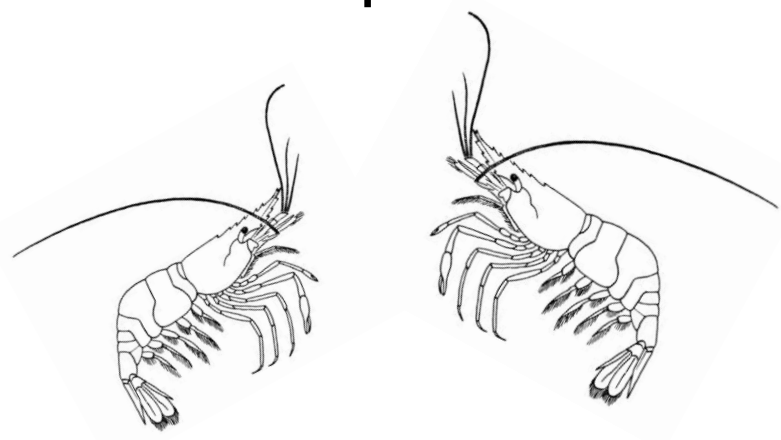


Figure 2: Map over the different locations, in the fjords outside of MBS.

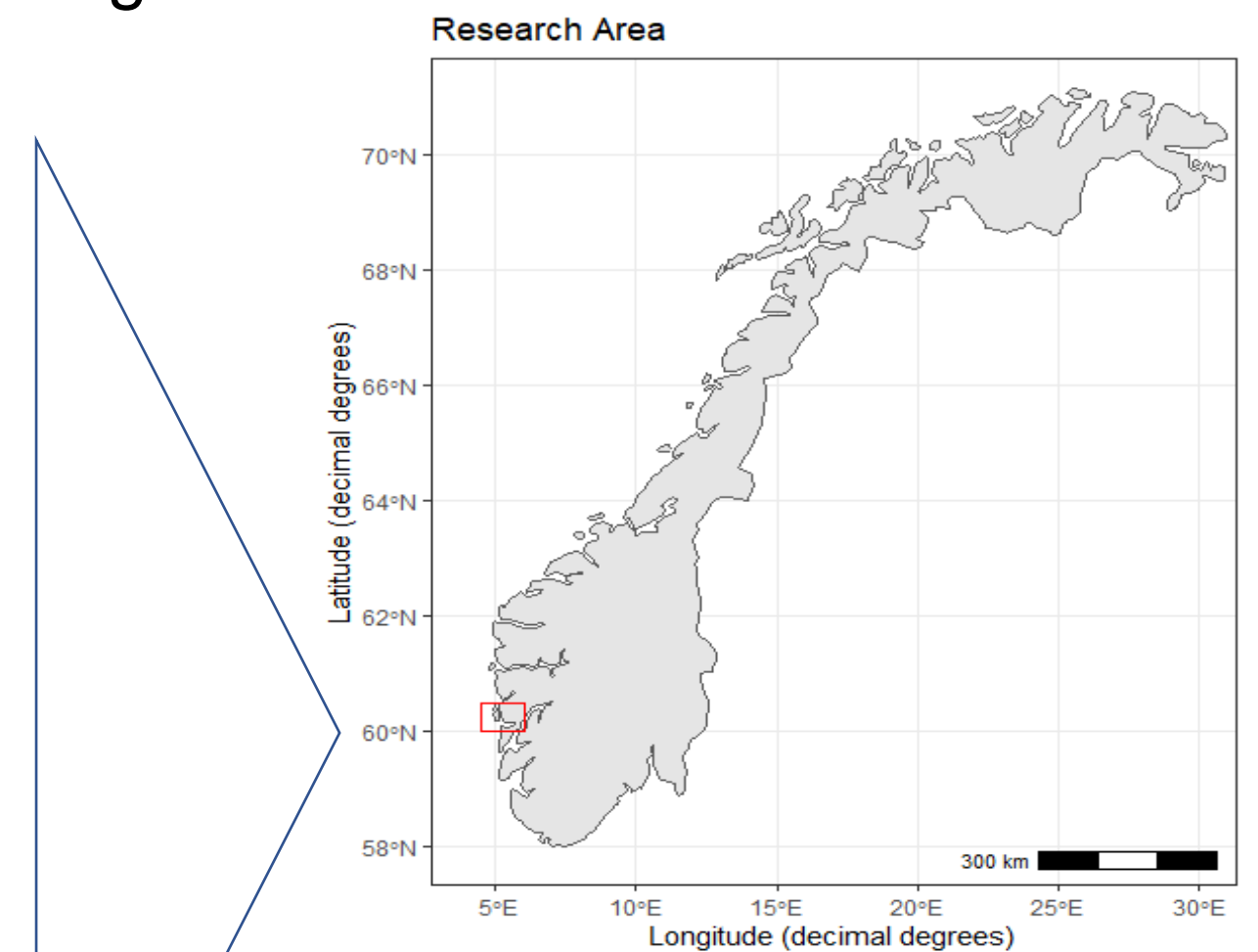


Figure 1: Map over Norway, with a red rectangle indicating the area of interest.

2. Sampling method

We used shrimp traps to sample and collected them two times a week from September to October. The traps were standing on the seafloor at various depths (ranging from 130 m to 247 m) depending on the location. It was three traps on each rope as indicated in figure 4.



Figure 3: Picture of the shrimp trap that were used.

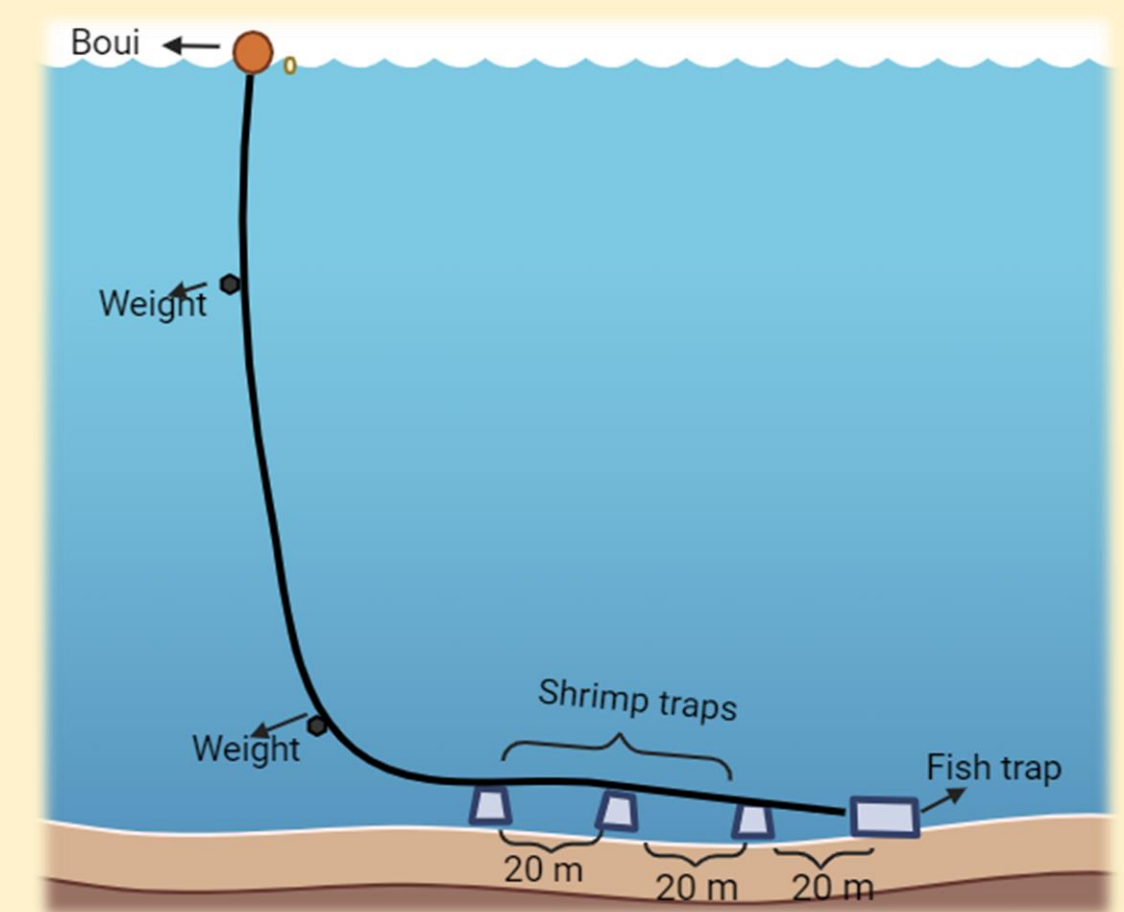


Figure 4: Shrimp trap setup with traps standing on the ground

3. We didn't find *P. borealis*, but...

We found *Dichelopandalus bonnieri* and *Atlantopandalus propinquus*, where *A. propinquus* was the most abundant.

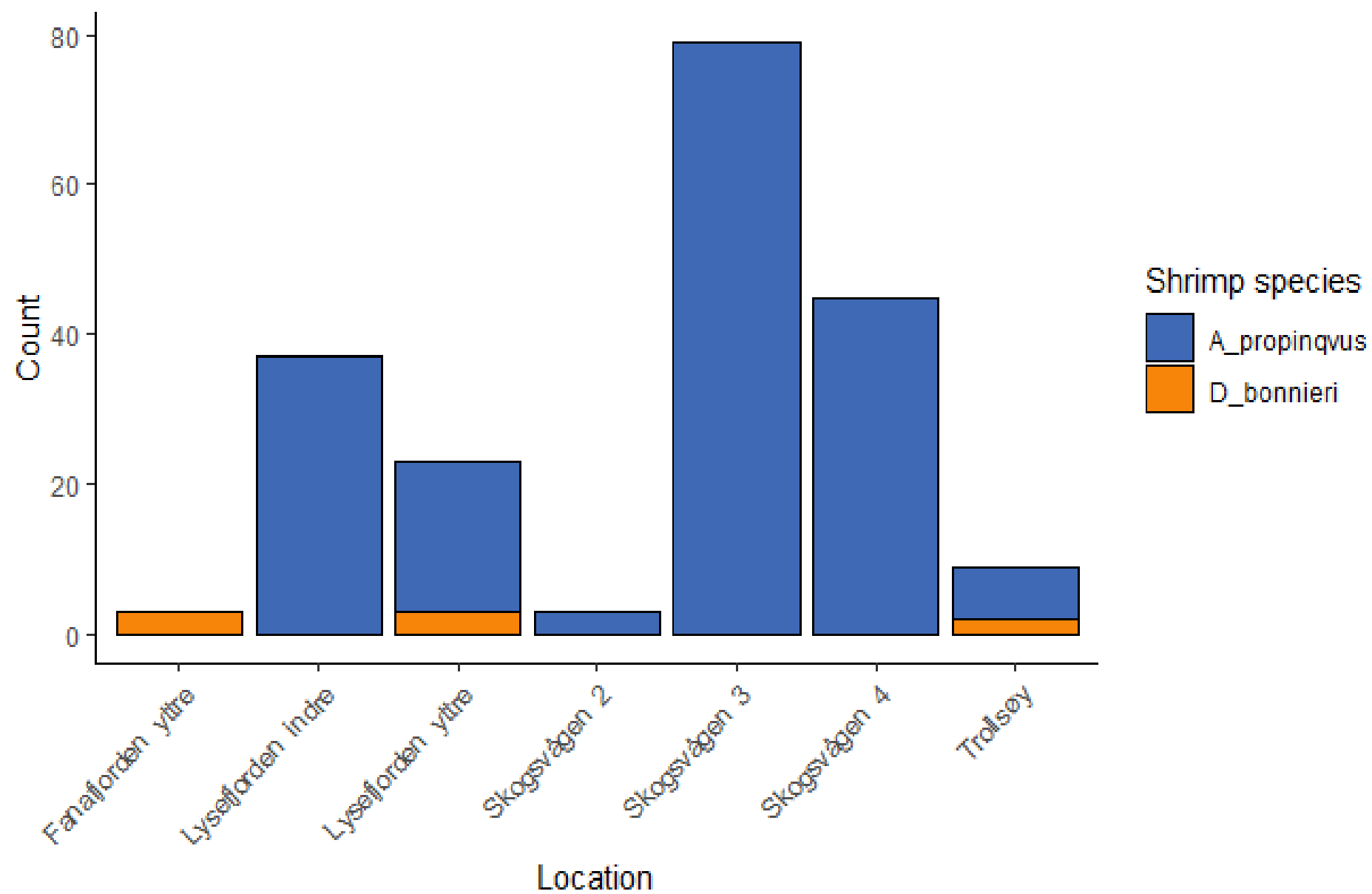


Figure 5: Proportion of shrimp species caught at each location, where orange is *D. Bonnieri* and blue is *A. Propinquus*. Location is on the x axis, while count is on the y axis.

4. *A. propinquus* seems to dominate

The results can give an indication that the dominant species in the investigated fjord, at the time of sampling, was *A. propinquus* not *P. borealis*. The answers to why this may be the case, is currently under discussion.

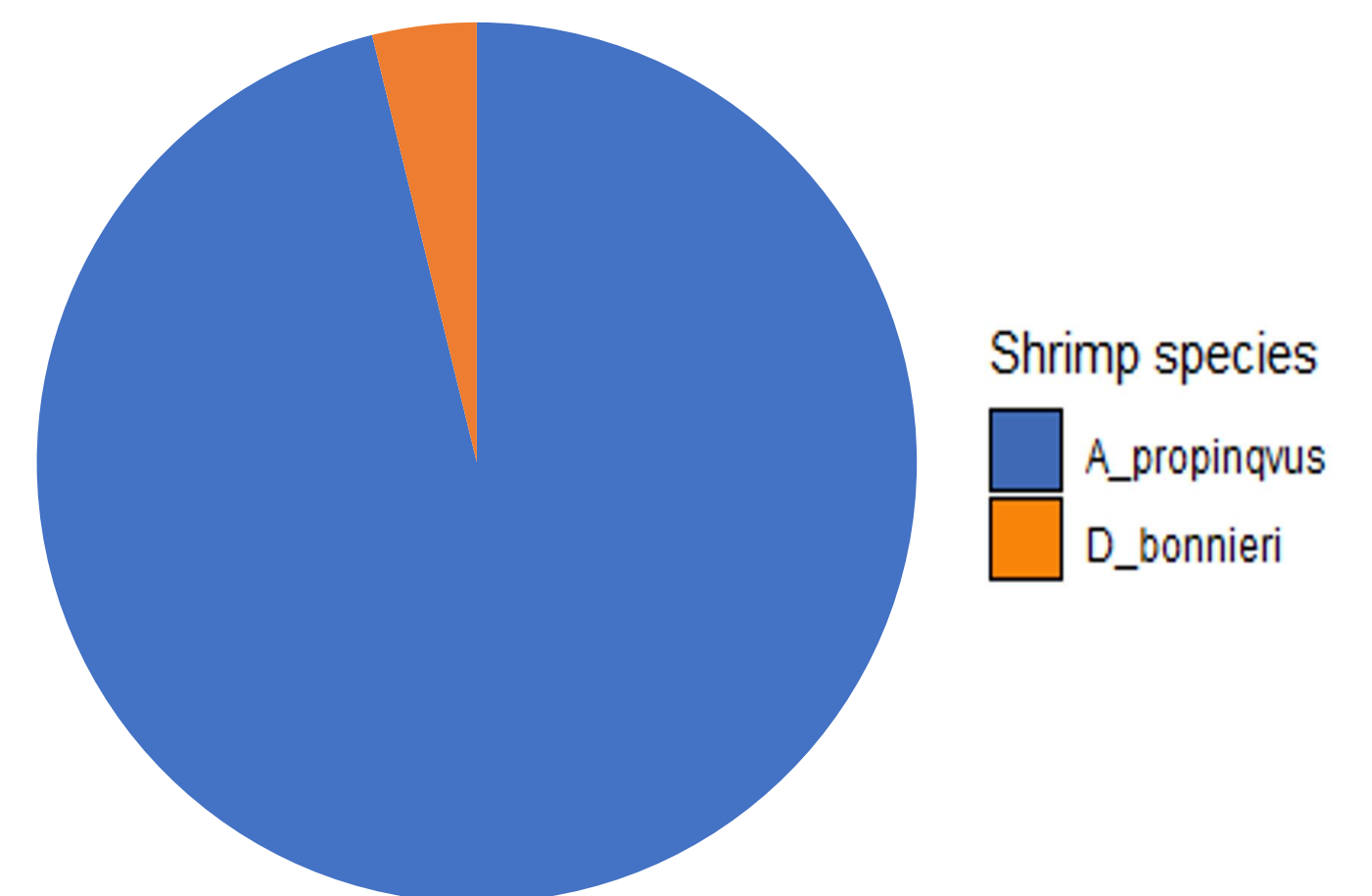


Figure 6: Proportion of shrimp species caught in the investigated fjords, where orange is the total count of *D. Bonnieri* and blue is the total count of *A. Propinquus*.

