

Decadal trends in cadmium and lead concentrations in  
*Mytilus edulis* samples from several European nations

[https://github.com/slm119/ENV872\\_FinalProject](https://github.com/slm119/ENV872_FinalProject)

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# 1 Rationale and Research Questions

## 2 Dataset Information

### 3 Exploratory Analysis

The ICES database includes *Mytilus edulis* sample data from 1979 to 2018 for X European countries. Most samples were collected near shorelines and within some enclosed bay or lake areas (Fig 1).

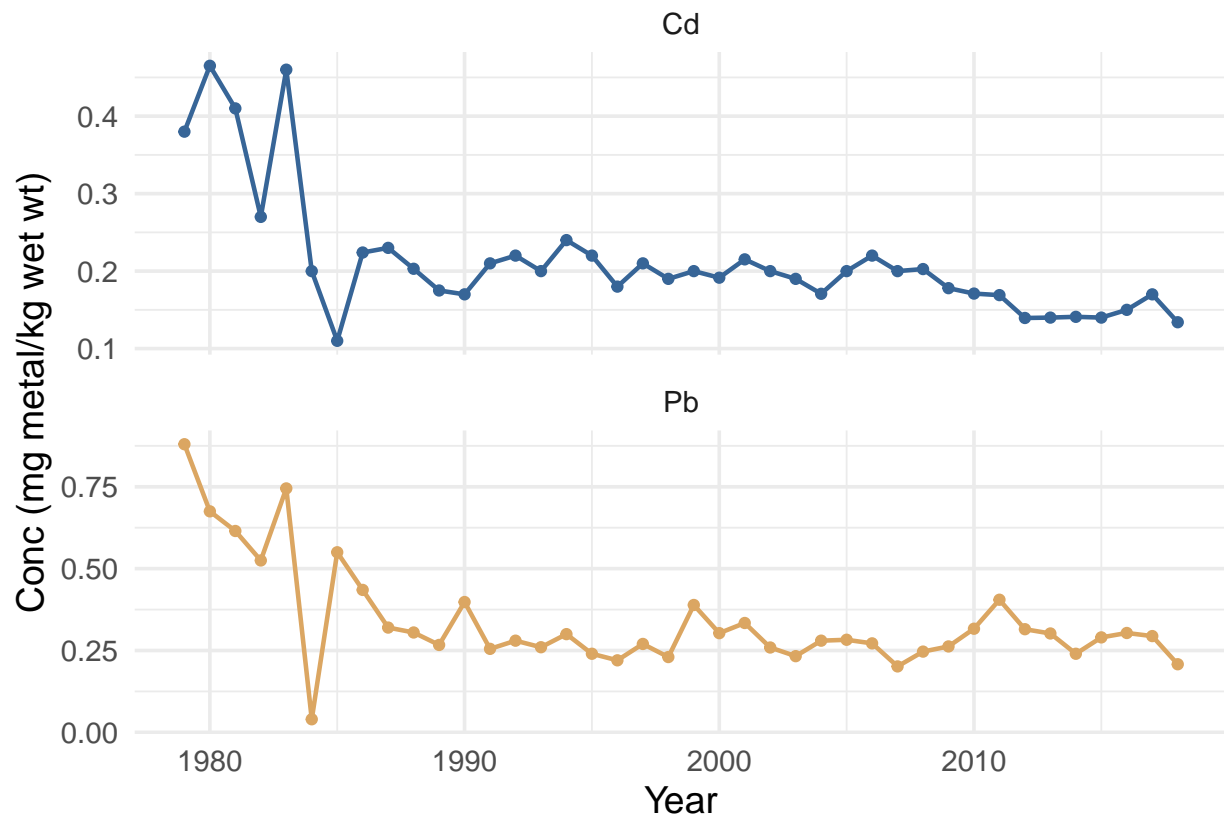


Figure 1: Yearly median concentrations of cadmium and lead in *Mytilus edulis* ICES monitoring data from 1979 to 2018.

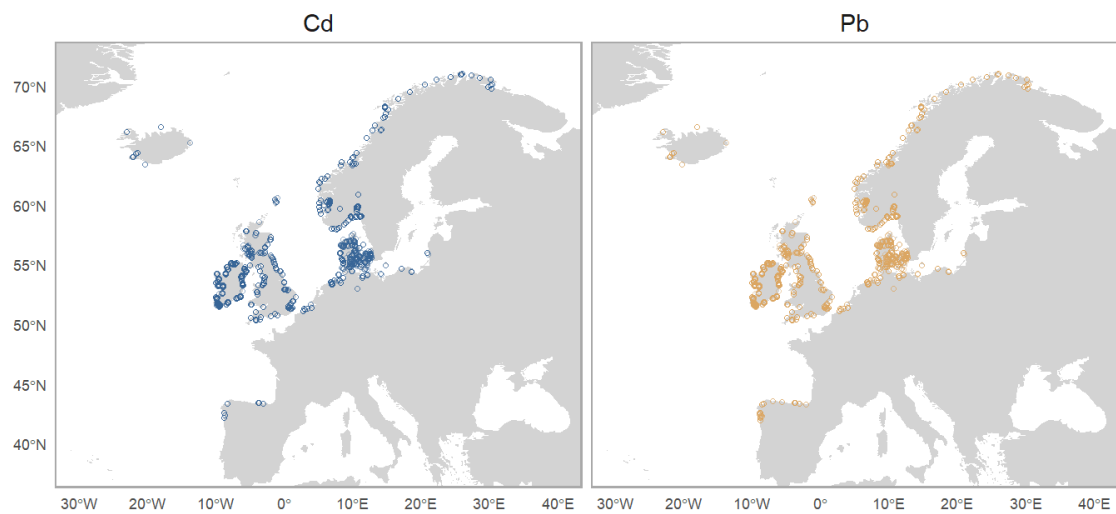


Figure 2: Sample locations from 1990 to 2018

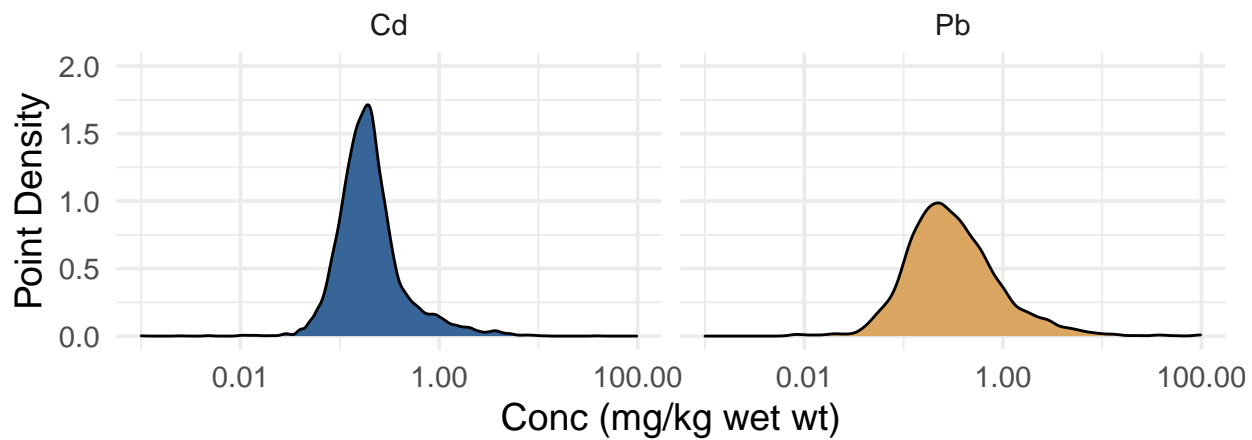


Figure 3: Distribution of sample concentrations of cadmium and lead in *Mytilus edulis* from ICES data 1990 to 2019.



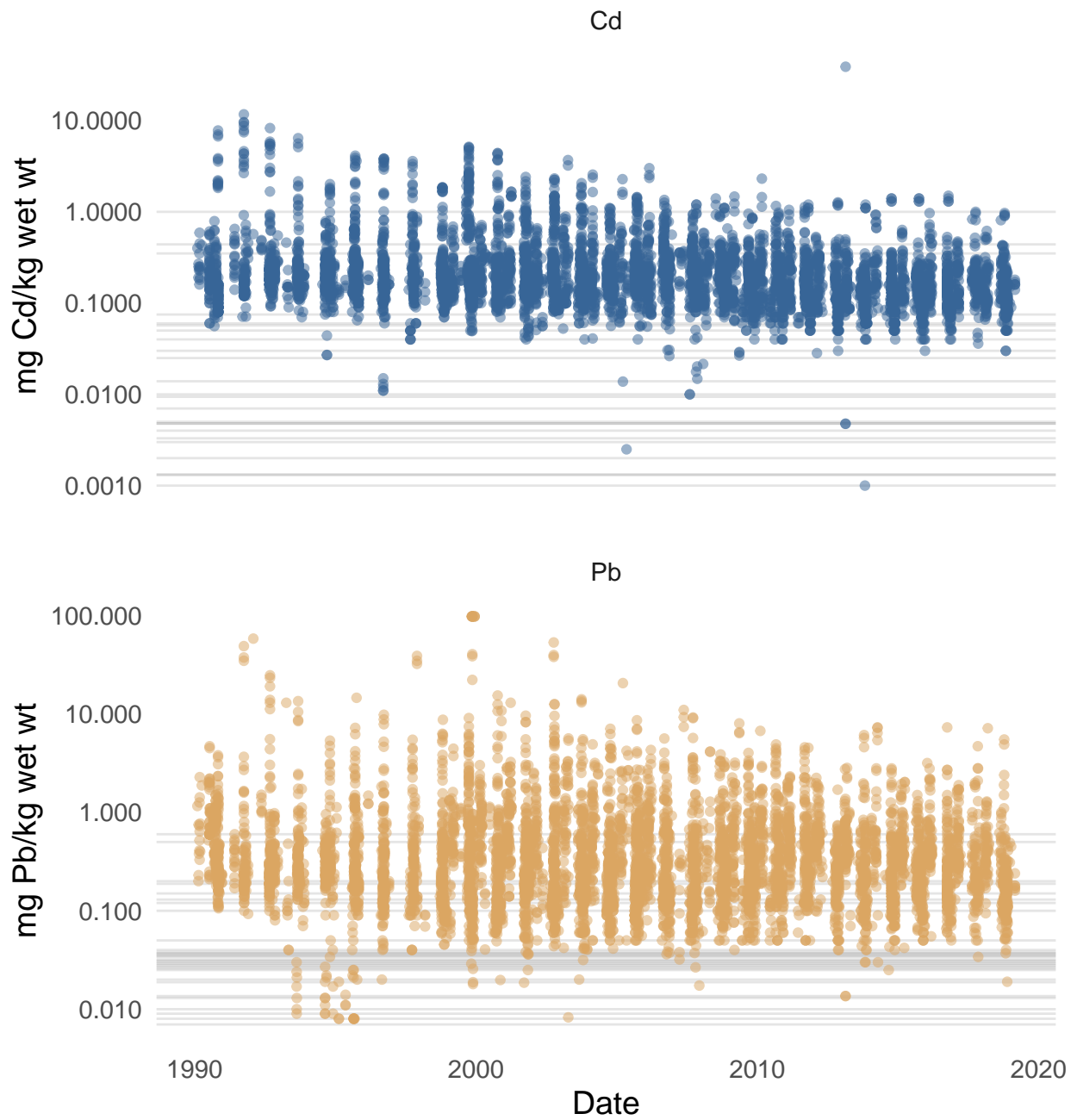


Figure 4: Cadmium and lead sample concentrations over time for ICES *Mytilus edulis* monitoring. Grey lines show the various instrument detection limits reported in each the data set.

## 4 Analysis

### 4.1 Question 1: How have cadmium and lead concentrations in *Mytilus edulis* changed over time?

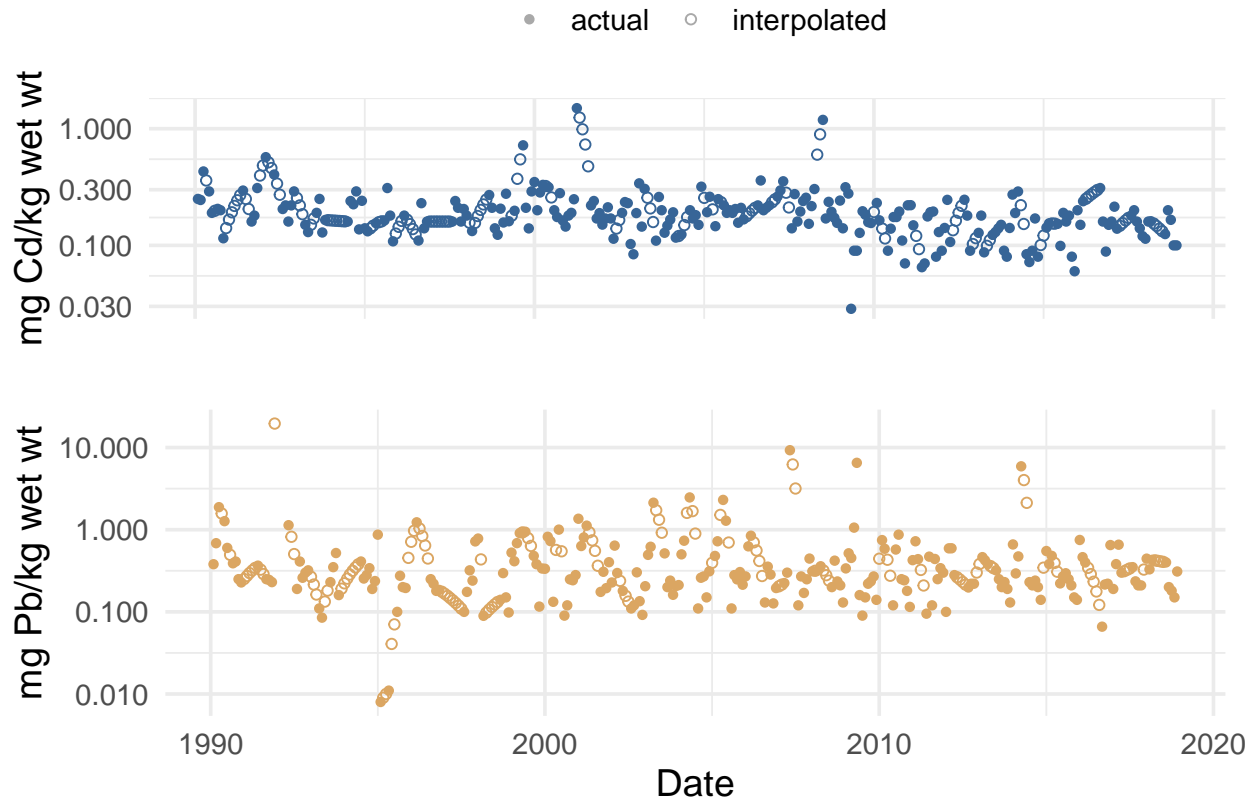


Figure 5: Concentrations of cadmium and lead in *Mytilus edulis* in ICES study region from 1990 to 2018.

### 4.2 Question 2: Do cadmium and lead concentrations in *Mytilus edulis* differ by country?

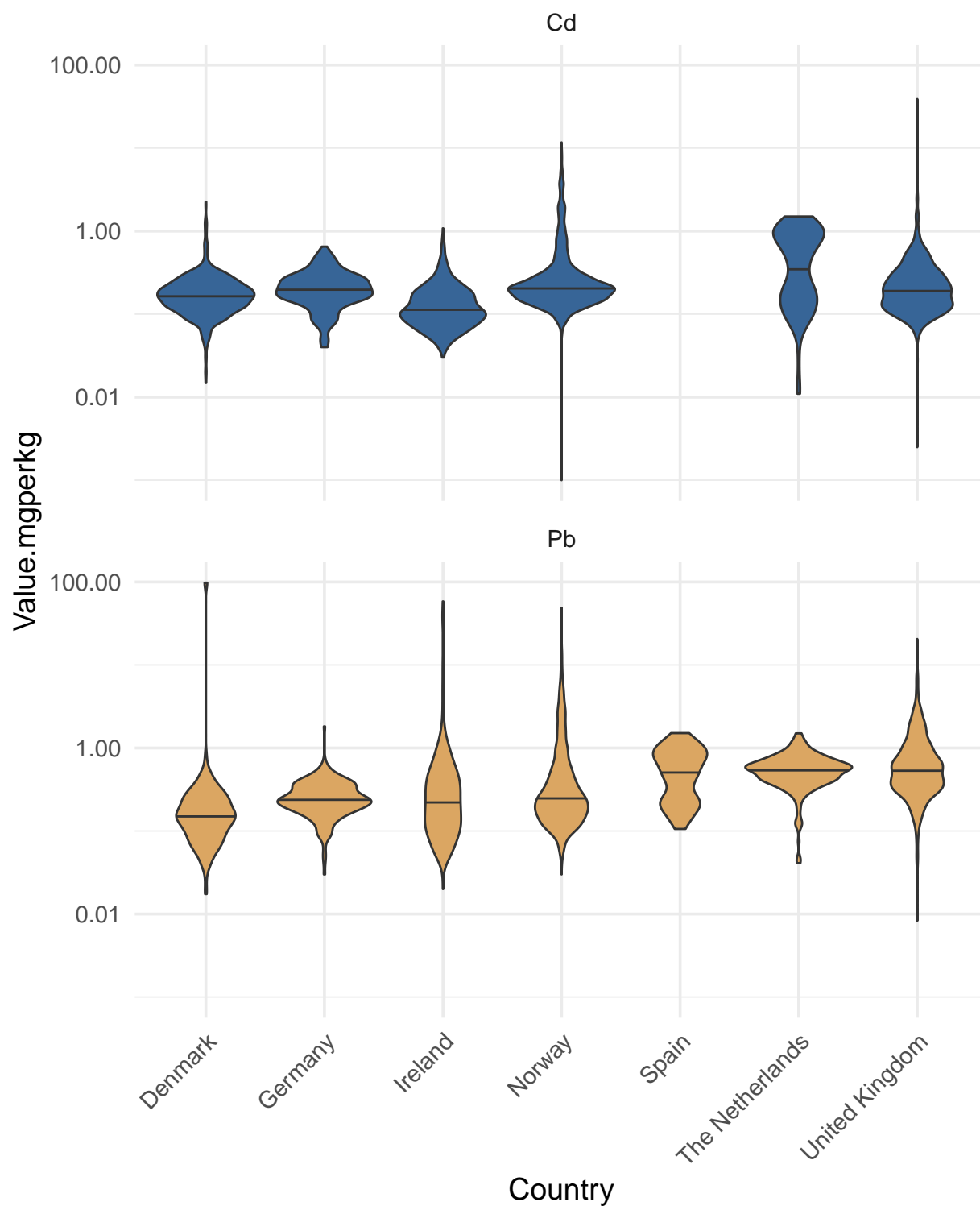


Figure 6: Concentrations of cadmium and lead in *Mytilus edulis* for countries with more than 100 samples between 1990 and 2018.

## 5 Summary and Conclusions

## 6 References

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