

2023

# A statistical analysis of the population of Barbel in the River Teme

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<https://pearl.plymouth.ac.uk/handle/10026.1/21842>

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The Plymouth Student Scientist  
University of Plymouth

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## Appendix

```

Dispersion test

data: sixanglerpoisson
z = 1.5879, p-value = 0.1123
alternative hypothesis: true dispersion is not equal to 1
sample estimates:
dispersion
1.596569
    
```

Figure 0.1: Dispersion Test for 6 Angler Poisson Model

```

Dispersion test

data: environmental_poission
z = 2.6467, p-value = 0.008129
alternative hypothesis: true dispersion is not equal to 1
sample estimates:
dispersion
8.524506
    
```

Figure 0.2: Dispersion Test for Environmental Poisson Model

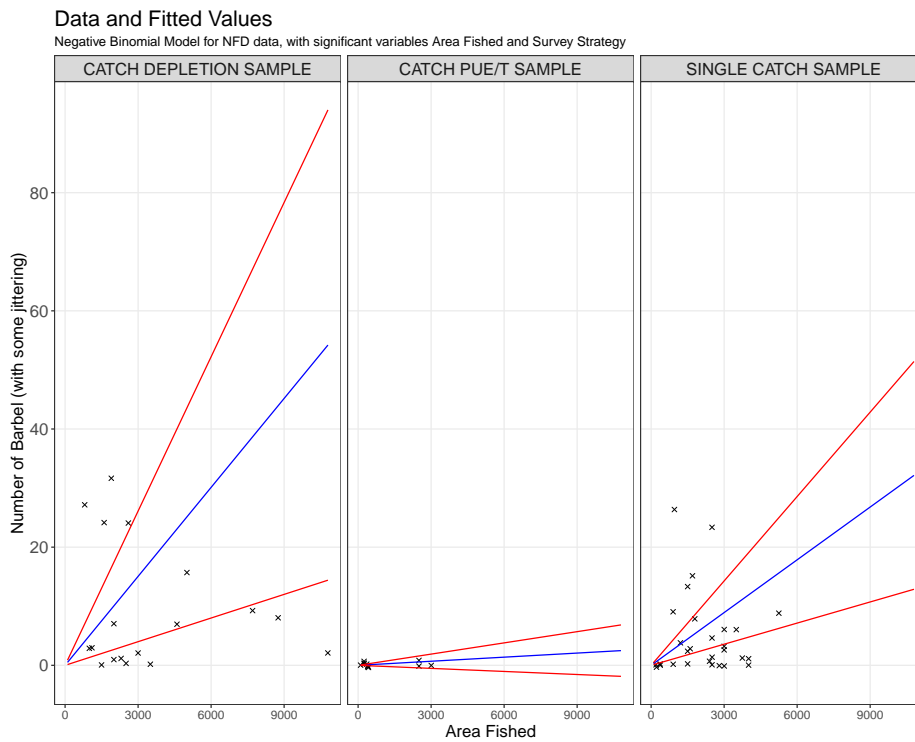


Figure 0.3: Fitted values of Number of Barbel model and real data points, plotted against Year for the Environmental Data

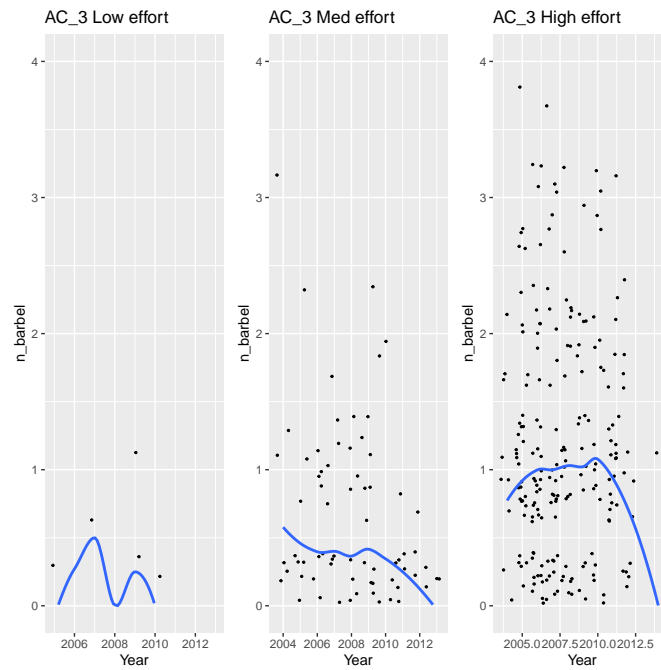


Figure 0.4: Rate vs Year by Effort level for AC<sub>3</sub>

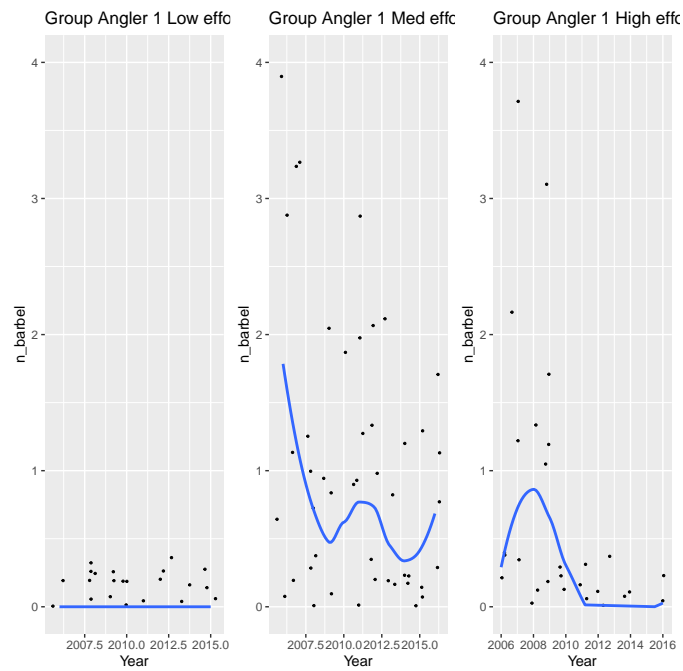


Figure 0.5: Rate vs Year by Effort level for Group Angler 1

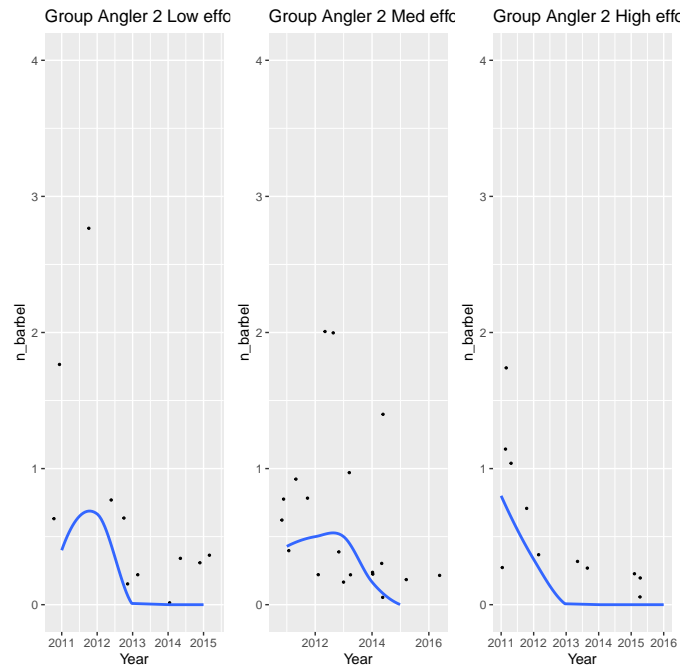


Figure 0.6: Rate vs Year by Effort level for Group Angler 2

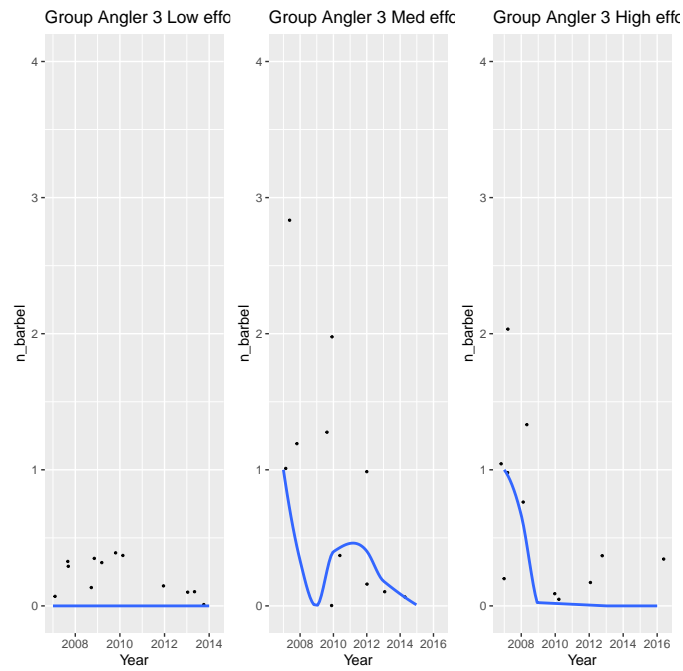


Figure 0.7: Rate vs Year by Effort level for Group Angler 3

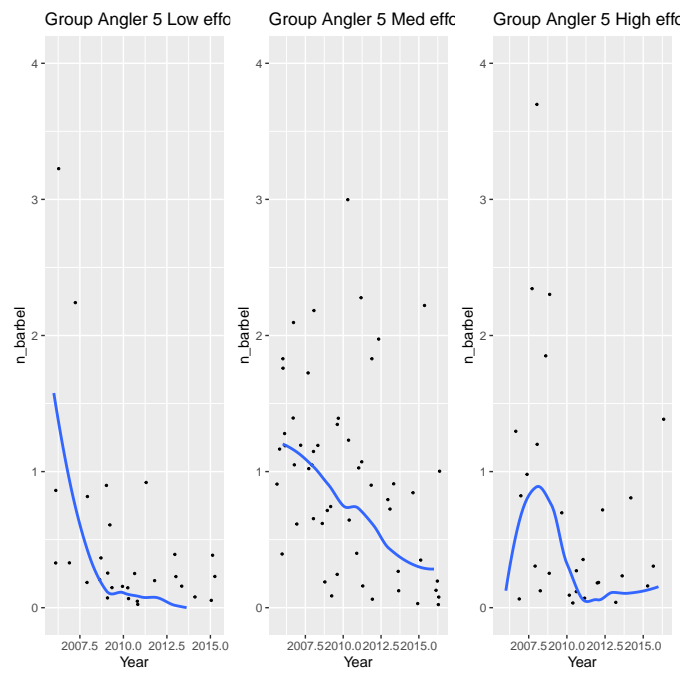


Figure 0.8: Rate vs Year by Effort level for Group Angler 5

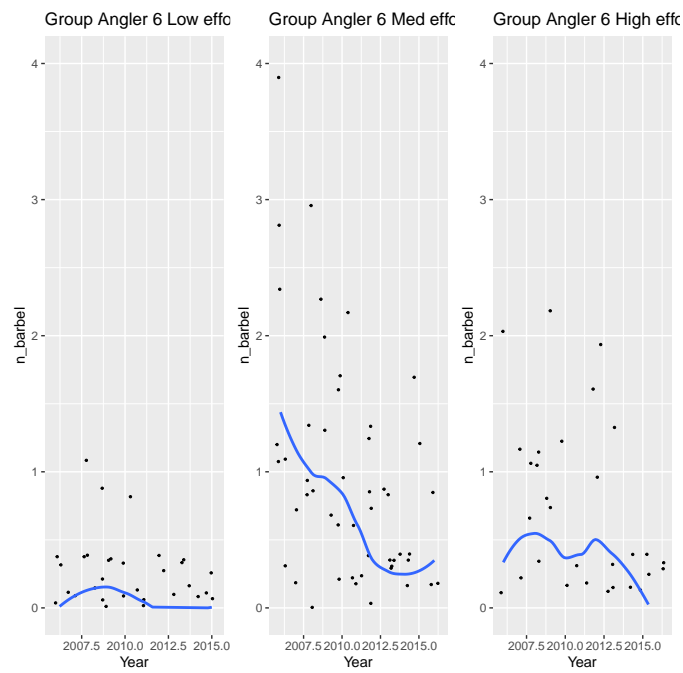


Figure 0.9: Rate vs Year by Effort level for Group Angler 6