

# How will climate change impact crime and justice in the UK?

## Task and Group:

Team 1A: Identify patterns of past seasonal variability in crime and apply this to future climate projections

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## Data:

Monthly crime data across 12 categories in London boroughs 2010-2022

UK NCIC historic observations

## Considerations:

Monthly data is not directly comparable

Focused on London

Weather: actual versus anomalies

## Output:

Cross variable analysis for crime/climate dashboard

Bivariate and multivariate analysis

Generalised additive and Gaussian modelling

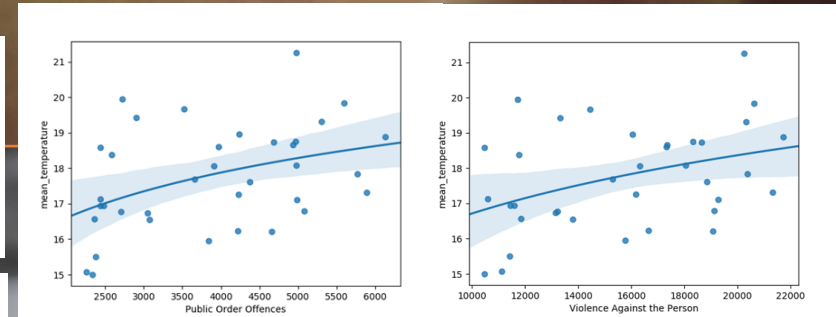
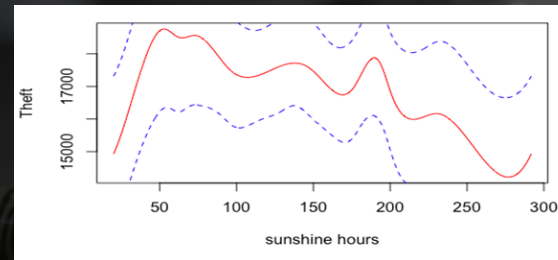
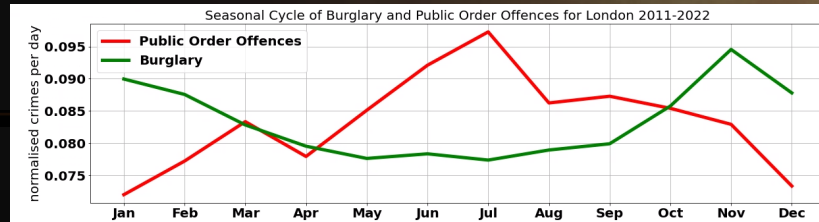
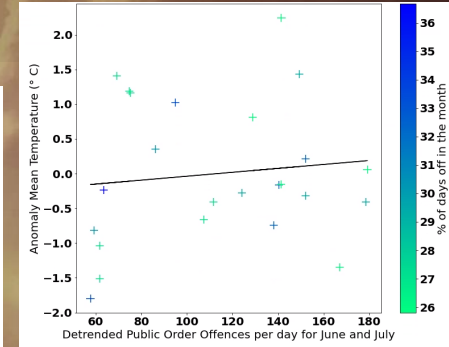
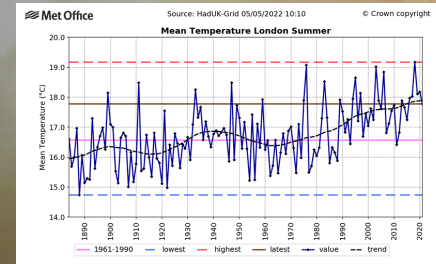
## Findings:

Literature suggests hotter, drier summers = more social and violent crime, warmer, wetter winters = more domestic crime

Literature gap: UK-based analyses and projections

Our findings: Correlation between mean temperature and public order offences, sunshine hours and theft

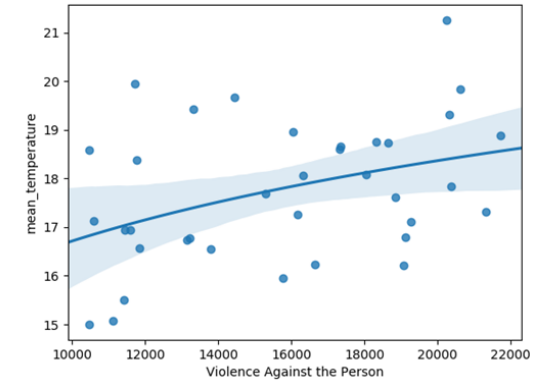
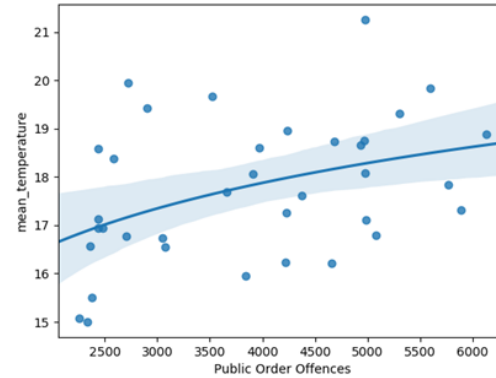
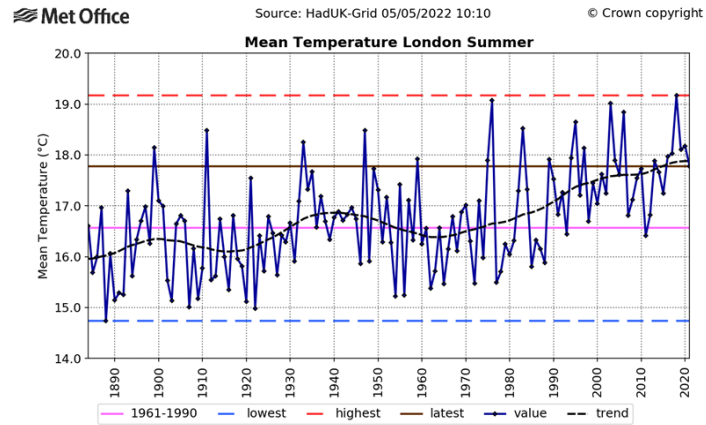
While some crimes (e.g. public order offences) well described by seasonal cycle, impact of weather in a given month is limited



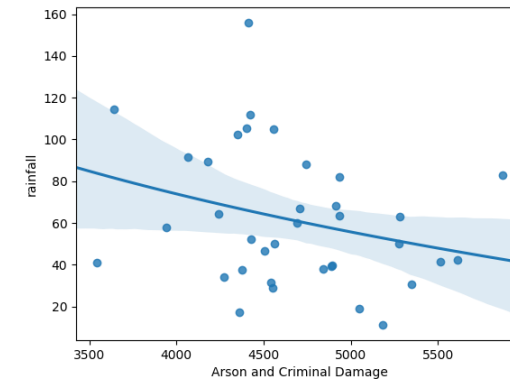
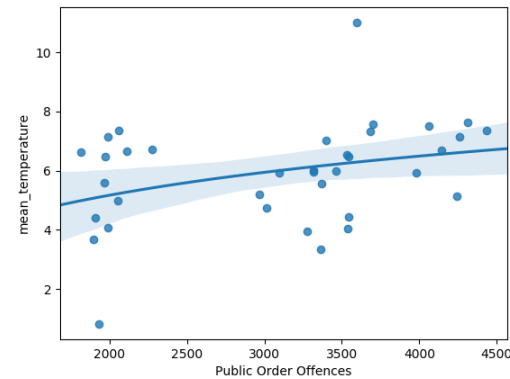
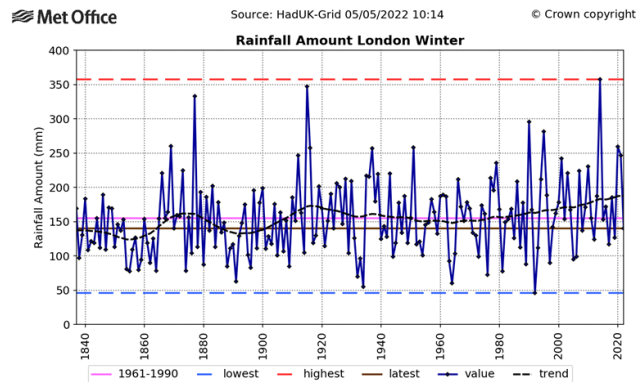
## Optional Figures:



## Some potentially useful conclusions – season trends



Increasing Summer temperatures in London – correlated with an increase in violent crime and public order offences



Increasing Winter temperatures and higher rainfall in London – higher temperatures lead to increasing public order offences. Higher rainfall generally correlates with lower criminal damage

