PlAcER: Plastic Accumulation Estimation using R

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Overview

Installation

To install simply type in the R console

```
install.packages('placer')
```

Usage

Load data containing observations of precense and absence of plastic debris.

species	location	country	latitude	longitude	year	debris_presence
hydroprogne_caspia	ile_aux_ouiseaux	Senegal	13.62795	-16.63338	2018	yes
hydroprogne_caspia	ile_aux_ouiseaux	Senegal	13.62795	-16.63338	2018	yes
hydroprogne_caspia	ile_aux_ouiseaux	Senegal	13.62795	-16.63338	2018	yes
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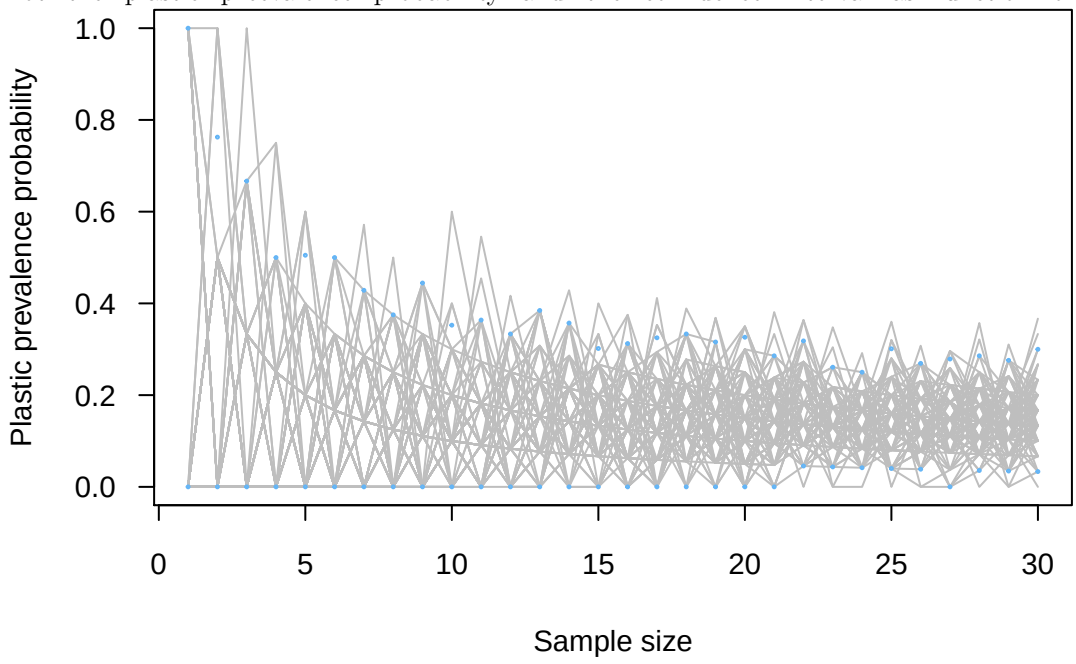
hydroprogne_caspia	ile_aux_ouiseaux	Senegal	13.62795	-16.63338	2018	yes

Calculate the bootstrap prevalence probability of plastic based on a specific number of samples. Then from the resampled data the 95% confidence intervals (CI) are computed. To quantify the prevalence probability and the CI simply provide the presence/absense data, the maximum number of sample sizes to test (default 300), and the number of bootstrap simulations (default 1000) as:

```
ternsci<-placer::plastic.ci(cterns$debris_presence, 300, 1000)
```

Plot the plastic preevalence probability and the confidence interval as function of sample size:



References