

# Effectiveness of compensatory measures for UK seabirds

**Regulatory context:** UK Habitats Regulations include 'derogation' where projects likely to have adverse effects on the integrity of protected sites may be approved if there are imperative reasons of overriding public interest (IROPI). In such cases, compensatory measures must be secured to ensure that the coherence of the network of sites is protected.



©Peter Evans

**Approach:** We used a formal expert elicitation process to identify and estimate the likely effectiveness of alternative compensatory measures for 11 UK seabird species. Experts first identified and ranked 14 compensatory measures with the potential for positively affecting seabird breeding success and survival (Fig. 1).

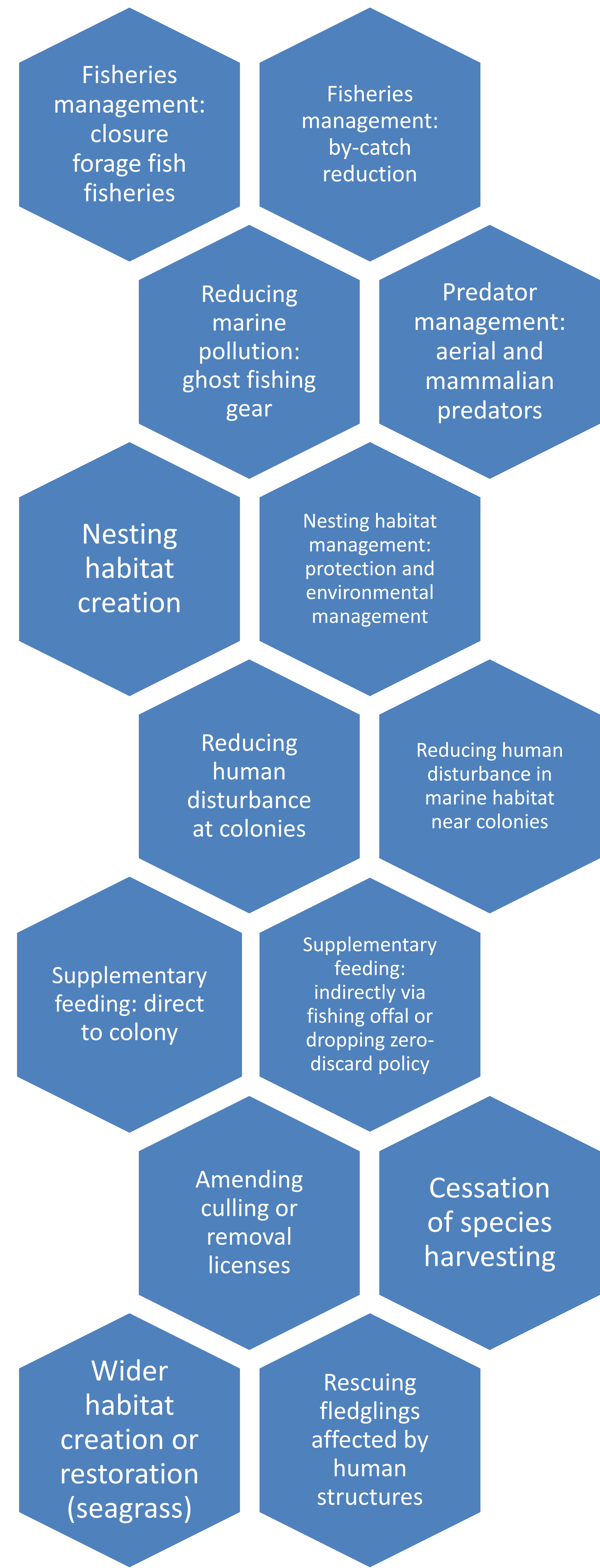
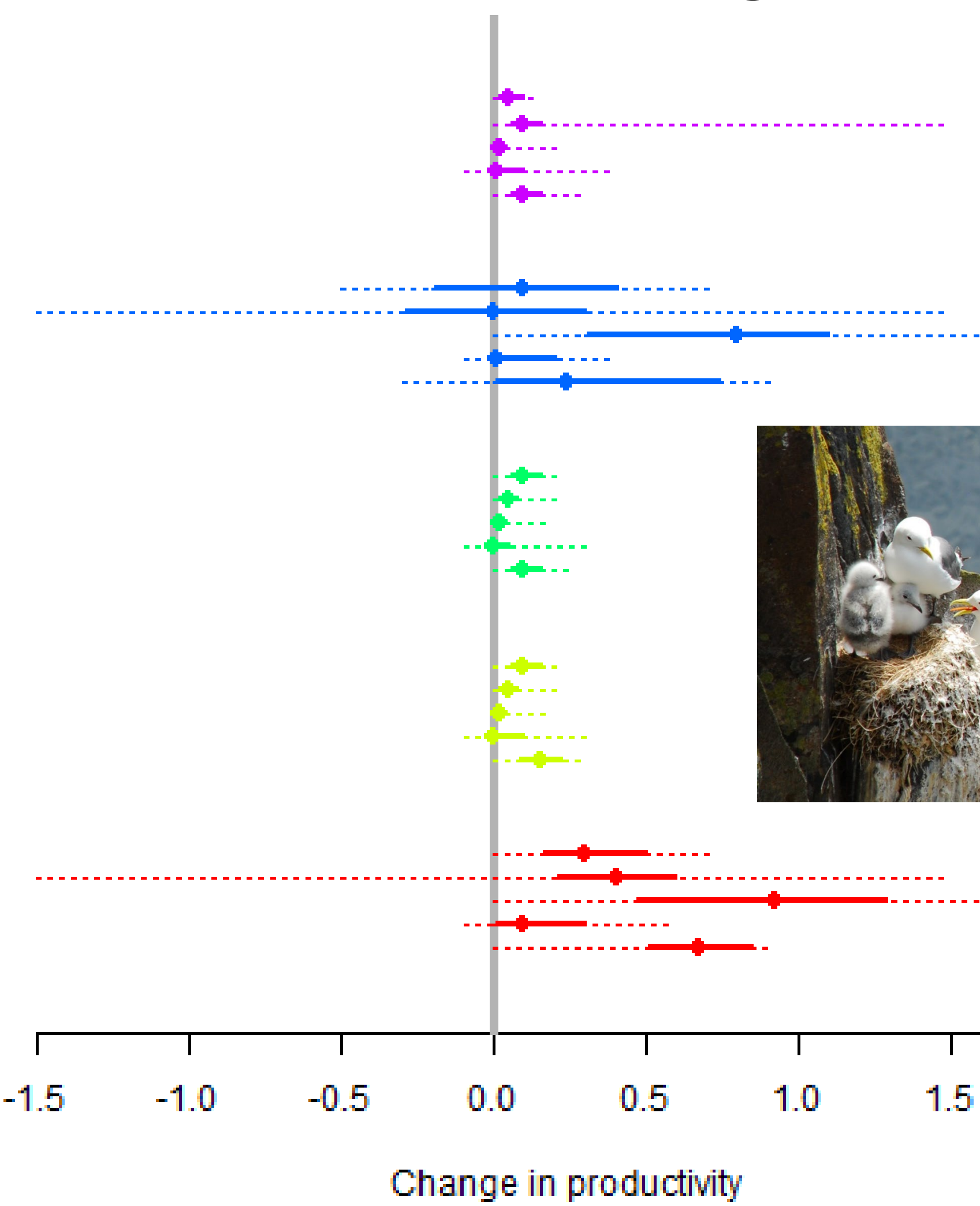


Figure 1. Suite of 14 compensatory measures for UK seabirds identified as likely to provide opportunities for gains in 11 seabird species.

**Outcomes:** Expected changes in breeding success and survival for a subset of the 14 compensatory measures were then elicited from the experts, including uncertainty (Fig. 2).

## Kittiwake breeding success



## Kittiwake survival

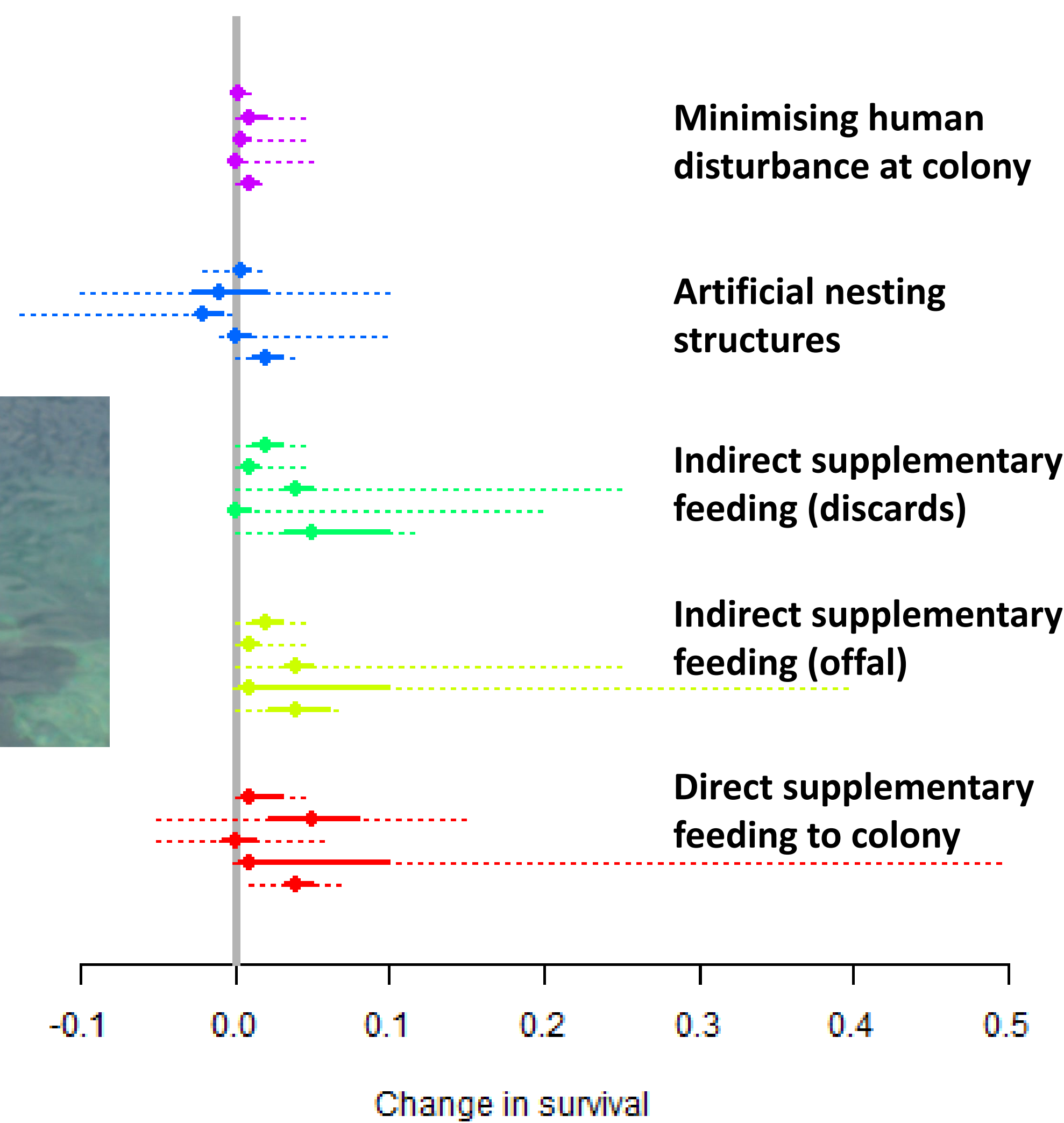


Figure 2. Probabilistic judgements elicited from five experts on the potential demographic gains from application of five alternative compensatory measures for Black-legged kittiwake. Each probabilistic judgement is depicted by each expert's value for the median (circle), upper and lower quartiles (thick line), and upper and lower limits (thin dotted line). Each colour represents a measure, and the experts are stacked vertically within each measure.

## Key findings:

- considerable uncertainty within & between experts in gains arising from potential measures means that results should be seen as **indicators** for types of measures likely to lead to some benefit for seabirds
- **Wider consequences** associated with some of the identified measures meant some were **not felt to be appropriate**, with more 'natural' options preferred over those considered to be more artificial
- Value in considering a **suite of measures to 'de-risk'** the process
- Compensation hierarchy ('like-for-like') should be re-considered

