



Conserving Natural Heritage

Environmental values inform attitudes towards biodiversity management

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What informs public attitudes towards biodiversity management?

- The effectiveness of biodiversity policies is often limited by insufficient public support. Psychological research suggests that basic values (guiding principles that provide general orientation for living) inform and underlie individuals' attitudes
- We investigated how the values that individuals associate with biodiversity management options, together with their perception of the situation, influence public support for biodiversity management



Case study: Craigleith, Firth of Forth

On Craigleith, a 7 ha island, the expansion of the invasive tree mallow *Lavatera arborea*, is correlated with the recent, steep decline in breeding Atlantic puffins *Fratercula arctica*. We conducted structured face-to-face interviews with local residents (n=176) and visitors (n=60) to assess:

- Public perceptions of both tree mallow and puffins
- Public attitudes towards four proposed management options
- Basic environmental values with regard to biodiversity management in general



Results

Statistical analysis showed that attitudes expressed by members of the public (Figure 1) were, in line with social psychological theory, informed by the values individuals held. Out of a set of seven conservation-related values (Figure 2), 'balance' and 'naturalness' were important factors that related significantly to the respondents' attitudes

- 'Natural' was defined in the questionnaire as 'untouched by humans', while 'balance' was described as an equilibrium between elements in nature
- The higher their support for 'naturalness' as a guiding principle, the more likely was an individual to rank 'no intervention' as the best option
- The more strongly a respondent advocated the maintenance and restoration of balance in nature, the more likely they were to rank 'no intervention' last (Figure 3)

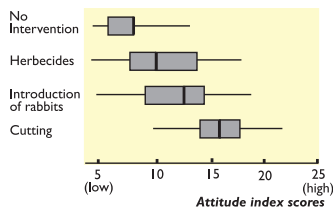


Figure 1 Attitudes towards management options

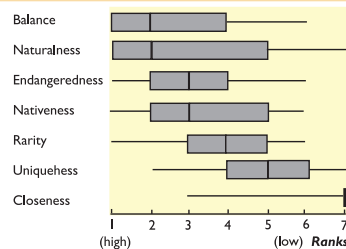


Figure 2 Relative importance of values

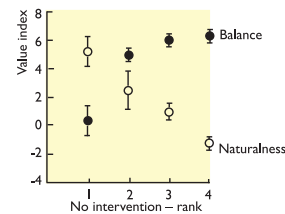


Figure 3 Relationship between management option 'no intervention' and values 'balance' and 'naturalness'

Implications for management and conservation policy

- Restoring an equilibrium between puffins and plants on Craigleith and preserving its naturalness were very important arguments for the public that determined their support for tree mallow management options. These findings are being taken into account by a local management group in developing a management plan for Craigleith
- The results suggest that public attitudes are well-rooted in their values. A better understanding of the value-based arguments associated with management options is thus essential to improve public support for conservation measures

