Supplementary Information: Questionnaor on food presentation methods for fish-eating ESB/EEP species held in BIAZA collections

You are being invited to participate in a research study entitled "Food presentation methods for fish-consuming ESB/EEP species held in BIAZA collections ". This study is being completed by Oliver O'Malley (Lecturer in Animal Sciences and Zoo Management) from University Centre Reaseheath. The purpose of this BIAZA Research Committee supported study is to assess food presentation methods for fish-eating (piscivorous) species currently involved in conservation breeding programmes within BIAZA member collections and will take you approximately 5 minutes to complete. Your participation in this study is entirely voluntary and you can withdraw at any time. Data collected during this research will help inform BIAZA of current feeding practices across the association as well as identify which taxonomic groups may potentially come into contact with marine plastic debris through ingestion of wild-caught fish species. We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. To the best of our ability your answers in this study will remain confidential. We will minimise any risks by anonymising all results once data collection is completed. No institution will be named as a result of this study. Thank you for taking the time to complete this survey.

1. What is the name of your animal collection?

2. What is the name of your section/department? (Please state 'all' if one section represents the whole collection)

3. Does your section/department currently hold any piscivorous species currently involved in European conservation breeding programmes*? *This includes both European Endangered Species Programmes (EEP) and European Studbooks (ESB)
Yes
No

4. Which of the following Taxon Advisory Group (TAG) categories contain EEP/ESB species that are fed whole (intact/non-gutted) fish as part of a routine captive diet within your section/department? (Please tick all that apply)
- Marine Mammal
- Fish and Aquatic Invertebrates
- Amphibian
- Reptile
- Penguin
- Ciconiiformes And Phoenicopteriformes
- Waterfowl And Pelecaniformes
- Falconiformes And Strigiformes
- Charadriiformes
- Canid And Hyaenid
- Bear
- Small Carnivore
- Felid
- No EEP/ESB piscivorous species fed whole (intact) fish

5.In order of importance (from top (most important) to bottom (least important)), rank these reasons for feeding whole fish as part of a routine captive diet for species within your section/department. Click on the arrows by each answer to change the order of reasons presented
- Low time cost of preparation
- Maintain sustainable expression of predatory feeding behaviours
- Use of whole fish as rewards in positive reinforcement training
- Preference of captive individuals towards whole fish over processed/chopped fish
- Nutritional composition of whole (intact) fish
- Small fish species used, multiple used in one feeding session

6. Which of the following Taxon Advisory Group (TAG) categories contain EEP/ESB species that are fed processed/chopped fish as part of their routine captive diet at your section/department? (Please tick all that apply)
- Marine Mammal
- Fish and Aquatic invertebrates
- Amphibian
- Reptile
- Penguin
- Ciconiiformes and Phoenicopteriformes
- Waterfowl and Pelicaniformes
- Falconiformes and Strigiformes
- Charadriiformes
- Canid and Hyaenid
- Bear
- Small Carnivore
- Felid
- No EEP/ESB piscivorous species fed processed/chopped fish

7.In order of importance (from top (most important) to bottom (least important)), rank these reasons for feeding processed or chopped fish as part of a routine captive diet for species within your section/department. Click on the arrows by each answer to change the order of reasons presented
- Available fish species are too large when presented whole
- Chopped fish pieces are used as smaller rewards within positive reinforcement training
- Keeping staff are able to balance nutritional requirements of individuals within a group setting more effectively
- Chopped fish pieces are used for behavioural management of competition with a group setting
- Keeping staff are able to use feed more efficiently as part of behavioural enrichment efforts
- Gastrointestinal tract (GIT) is removed to prevent spoiling of food item
- Gastrointestinal tract is removed to prevent ingestion of contaminants

8. Which three fish species are most used as food species within your section/department? (Please list these in order of most used to least used.)

9. Within the last year, has plastic debris been observed in the faeces of any species at your institution?
- Yes
- No
- Unsure

10. If you answered yes to the previous question, which species was found to have plastic debris in a faecal sample? Please state the scientific name where possible.

11. Would you like to receive a finalised project report for reference at your institution?
- Yes
- No