



University of
St Andrews

Participant Debrief & Information

Ecological Consequences of Orca Predation on Seals (ECOPredS):

a citizen science approach

Thank you for taking part in our research project; your contribution is valuable.

What is the study about?

We invite you to participate in a research project about seal predation by killer whales in Scotland. The project will use visual observations, including image and video recordings, to collect behavioural data on killer whale foraging, and estimate the number of seals (species, juvenile vs. adult) approached, pursued and captured per unit whale effort. We use “focal follow” protocol where a single individual whale and its associated group is tracked through an observation period. Citizen scientists can help to collect these focal follow data in a range of different locations, seasons, and record rare predation events. Even when killer whales are absent, observations of coastal habitats and seals, entered in the “effort form”, are a valuable contribution to the project.

Drone footage will greatly assist in visual observation efforts, providing valuable information on prey identification (species and age), killer whale hunting techniques, group composition, breathing rates, and swim speed. Drone footage is particularly useful for observing predation events occurring further offshore or obscured by coastlines, where land-based visual observation would not be possible. We will ask for time and location information for each image/footage.

Do I have to take part?

This information sheet has been written to help you decide if you would like to take part. It is up to you and you alone whether you wish to take part. If you do decide to take part you will be free to withdraw at any time without providing a reason.

What would I be required to do?

There are different ways you can participate:

- **Sightings:** you will be asked to make observations in a coastal area where seals could be present, and then fill in datasheets describing your observation effort (“effort form”: time, location, weather, habitat) and if present, killer whale sightings (“sighting form”: focal follow protocol describing whale behaviour and any interactions with seals). Providing your name and contact details is not required.
- **Images and video footage:** you are invited to submit any images and video footage of killer whales on their own, or interacting with seals. Please email us to find out more.
- **Submit old drone footage:** any drone footage collected before 1st April 2021 that meet ECOPredS guidelines for safe and responsible drone flights can be submitted to the project. Please email us to find out more.
- **Volunteer pilot:** volunteer pilots are invited to collect drone footage throughout the duration of the project. Footage must be collected inline with the ECOPredS Standard Operation Procedure. Please email us to find out more.

Are there any risks associated with taking part?

Your participation is voluntary and any observations are conducted entirely at your own risk – while outdoors, please be aware of the risk of falling into water, dangerous cliffs, and weather exposure to sun/cold. Please follow the law while flying your drone, and consult the ECOPredS standard operating procedures for wildlife-friendly drone flights.

Informed consent

It is important that you are able to give your informed consent before taking part in my project and you will have the opportunity to ask any questions in relation to the research before you provide your consent (oral or written).

What information about me will you be collecting?

Besides animal data (sightings, observations of coastal habitats, image/footage of animal behaviour) you may also provide your name and email. Entering your name and email is not required for submitting sightings; however, to submit image/footage or volunteer as a drone pilot, we do require you to email us. Observer names and emails will be kept on our project email server (ecopreds@st-andrews.ac.uk), and will not be shared outside the project team, or published in any way. If you do provide

email/telephone number, you may be contacted about the submitted data, in case there are any further questions about your observations.

How will my data be stored, who will have access to it?

The observational (animal) data will be stored separately from your name and contact details. Only the project team (Sutherland and Isojunno) will have the database key that allows connecting your personal data with the animal data. Your participation will only be known to the project researchers who will be the only people to have access to the identifiable data and consent forms. All data will be stored in a secure database at the University of St Andrews.

How will my data be used, and in what form will it be shared further?

Your citizen science contributions (animal data) will be analysed as part of the research study, and may be published and used for future scholarly research without further consultation. These data will be anonymous and not contain any participant data.

For animal data analysis and validation purposes only, we reserve the right to privately share any submitted drone images/footage with other researchers. This is important for other researchers to be able to verify our raw data, and participate in data processing. For any such private sharing, the image/footage will be water-stamped with “data validation only – do not share or publish” to ensure artistic rights remain with the photo/videographer.

Photographic material or video will not be published without the explicit permission and full name credit of the contributing photo/videographer. If you wish to do so, you may give the permission for all contributed material via the consent form. Otherwise, the researcher will contact you to request permission for any image/footage they are interested in using. Image/footage containing identifiable persons will not be published without their permission. Submitted footage will not be used by the project for commercial gain, and you will remain the owner of the footage.

When will my data be destroyed?

The animal data will be shared as described above, and then the data held by the researcher will be kept indefinitely. Your citizen science contributions will be stored and processed in the University of St Andrews. No matter their physical location, researchers are required to store and make use of personal data as if they were in the UK; University requirements and the provisions of the data protection law apply at all times.

Lawful basis for making use of personal data and data protection rights

The lawful basis that the University will rely on to make use of your personal data during the research and for related research projects in the future, as described to you is public task; where special category personal data are used the lawful basis is archiving purposes in the public interest, scientific or historical research purposes or statistical purposes.

The University of St Andrews is a Data Controller for the information you provide about you. You have a range of rights under the data protection legislation, including the right of complaint. However, some of those rights may not be available where you provide personal data for research purposes. For questions, comments or requests, consult the University website at <https://www.st-andrews.ac.uk/terms/data-protection/rights/>, or email dataprot@st-andrews.ac.uk.

You will be able to withdraw your data within ONE WEEK of submission. After that, anonymous data will be shared with collaborators and we will not be able to withdraw it after that point, because we will no longer know which data is yours.

Ethical Approvals

This research proposal has been scrutinised and subsequently granted ethical approval by the University of St Andrews Teaching and Research Ethics Committee.

What should I do if I have concerns about this study?

In the first instance you are encouraged to raise your concerns with the researchers and if you do not feel comfortable doing so, then you should contact the School of Biology ethics committee: www.st-andrews.ac.uk/utrec/guidelinespolicies/complaints/

Further information and contact

Please visit the project website www.ecopreds.com for further information about the project.

If you have concerns or if you would like a summary of the research results, please feel free to email the researcher(s) below.

Researchers Julia Sutherland jcs29@st-andrews.ac.uk
Saana Isojunno si66@st-andrews.ac.uk

School Ethics contact Luke Rendell
ler4@st-andrews.ac.uk



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Consent Form

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The University of St Andrews attaches high priority to the ethical conduct of research. We therefore ask you to consider the following points before signing this form.

If you are submitting sightings, images or footage, please confirm via email to ecopreds@st-andrews.ac.uk that you are happy with each point in the sections below (A-C) that are relevant for your submission. Clicking “submit” on the online sighting form confirms that you are willing to participate in this study (as per Section A).

A. All participants (whether submitting sightings, images, or footage)	
<ul style="list-style-type: none"> I understand the contents of the Participant Information Sheet and that I can contact the researchers if I have any questions (<i>ECOPredS-participant-info</i>) 	<input type="checkbox"/>
<ul style="list-style-type: none"> I understand that my participation is entirely voluntary and that I can withdraw from the study at any time without giving an explanation. 	<input type="checkbox"/>
<ul style="list-style-type: none"> I understand who will have access to my data, how it will be stored and shared. I understand that I will be able to withdraw my data within a week of submitting the record, and that if my data has been anonymised, it cannot be withdrawn after that point. 	<input type="checkbox"/>
<ul style="list-style-type: none"> I agree to minimize disturbance to wildlife and never intentionally or recklessly harass wildlife 	<input type="checkbox"/>
<ul style="list-style-type: none"> I agree to take part in the above study 	<input type="checkbox"/>
B. Photo/videographers (submitting any video/footage)	
<ul style="list-style-type: none"> Any past drone footage or images (shot prior to 1st April 2021) submitted to the project adhere to the ECOPredS guidelines for retrospective data (<i>ECOPredS-retrospective-footage</i>) 	<input type="checkbox"/>
<ul style="list-style-type: none"> I understand that any submitted photographs and/or footage may be shared privately with other researchers for data validation purposes. Any image/footage shared in this way will be water-stamped as “data validation only – do not share or publish” to ensure artistic rights remain with the photo/videographer. 	<input type="checkbox"/>
<ul style="list-style-type: none"> Optional: the photographs and video that I have submitted, along with my full name as the photographer, may be used in project-related publications (website, social media, scientific articles, presentations). I would like to be notified by project researchers if my images are being used. 	<input type="checkbox"/>
<ul style="list-style-type: none"> I know how I can fly my drone legally and confirm that any footage submitted to the project was obtained following civil aviation laws 	<input type="checkbox"/>
<ul style="list-style-type: none"> I am an adult or young person aged 16 or over 	<input type="checkbox"/>
C. Qualified volunteer pilots (submitting video/footage that was shot 1 st April 2021 or later)	
<ul style="list-style-type: none"> I have read and agree to adhere to the ECOPredS standard operating procedure (SOP) for drone flights contributing to research (<i>ECOPredS-prospective-flights</i>) 	<input type="checkbox"/>
<ul style="list-style-type: none"> I have submitted evidence of my Civil Aviation Authority (CAA) qualification (such as A2CofC) to the project 	<input type="checkbox"/>