



## Common seal pup 'mouth rot' investigation

### Information for rehabilitation centres

There is currently an ongoing investigation into an outbreak of disease affecting common seal pups in the UK. The investigation is being led by representatives from the charity 'British Divers Marine Life Rescue' and Dr. Jamie Bojko of Teesside University, with support from the Cetacean Strandings Investigation Programme. It is backed by government funding.

#### Background

The disease is characterised by:

- Muzzle swelling
- Abscesses/wounds around the lips and muzzle
- Ulcerations within the oral cavity, with the hard palate most frequently and severely affected
  - Hard palate ulcerations can become severe and extensive, progressing to palatine bone exposure, osteomyelitis, bone necrosis, oro-nasal fistulae formation, and sepsis

This is a condition that has been observed for many years in common seal pups. It was assumed to be a result of newly weaned pups mouthing inappropriate objects (such as rocks) as they learnt to forage, resulting in trauma to the mouth and the introduction of infection. However, in recent years we have seen a rise in case numbers, and a large proportion of pups so severely affected that they have required emergency euthanasia due to compromised welfare.

#### What are the aims of the investigation?

As a result of our work, we hope to identify the cause of this condition and attempt to understand why case numbers have increased, how to better care for affected pups in rehabilitation, and whether it poses a threat to common seal conservation- and if it does, if we can do anything to help manage the condition.

#### The investigation so far

During the 2012-2023 common seal pupping seasons, information about each observed case of mouth rot was recorded, and samples from pups that had sadly died or were euthanased due to the severity of their condition, collected for analysis.

Initial results have shown cases being reported primarily up and down the east coast, with Norfolk appearing to be a hot spot. Why this is the case is not yet known.

Work in the lab under Dr Jamie Bojko at the National Horizons Centre, Teesside University, points towards a complex viral and bacterial complement underlying the cause for 'mouth rot'. However, further data and sample collection are required in order to identify the key pathogens.

### **How you can help**

The support of rehabilitation centres is greatly appreciated and hugely valuable.

So far, most of the obtained data has been from volunteers attending seal callouts on the beach, and the veterinary surgeons who have first treated the seal. In addition, it would be extremely valuable to also collect information about the rehabilitation process that may follow. For example, how was the case managed? Did the pup respond well to the treatments administered? What was the overall outcome for the pup? The more information we can gather, the better chance we have of potentially understanding the disease process, the aetiology, and why cases are increasing.

If you are admitting pups with mouth rot signs, and would be willing to contribute their case outcomes to the project, you can email us at [mouthrotproject@bdmlr.org.uk](mailto:mouthrotproject@bdmlr.org.uk). A copy of our data collection form (for new cases) can be found at <https://bdmlr.org.uk/common-seal-mouth-rot-project>.

We can also send out a sampling pack which includes the materials needed for storing the samples. For example, we ask for one sample in 96-99% ethanol, which we are aware is not widely stored in rehab centres (however, in an emergency, surgical spirit is acceptable).

To those of you who have already been involved in data collection in previous years, we are very grateful and ask again for your continued support if at all possible. We are missing the outcomes for some pups from the previous two years of data collection, it would be appreciated if you could help us fill these gaps .

### **Questions?**

If there are any questions at all about the study, please do not hesitate to contact the investigation team at [mouthrotproject@bdmlr.org.uk](mailto:mouthrotproject@bdmlr.org.uk). For more urgent advice, please contact the BDMLR hotline directly (01825 765546), so they can put you in touch with a member of the investigation team directly.

### **Thank you**

Thank you very much for your assistance with this important project. We are aware how busy rehabilitators are at the moment, and we are very grateful for your time. Any information/samples gathered from these pups will be used to help determine the cause of this concerning disease and how it might be best managed in the future.

With warm regards,

A handwritten signature in purple ink that reads "NArrow" with a horizontal line underneath.

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