Protocol for Daily Inspection of Anuran Colonies

Purpose

To monitor key welfare indicators based on animal-centred observations, enabling prompt intervention and veterinary consultation when anomalies are detected.

Materials Required

- Observation log (use the accompanying Excel spreadsheet template).
- Torch or low-intensity light source for non-invasive viewing.
- Magnifying glass for close examination (e.g., of skin or oedema).
- Personal protective equipment (gloves, masks) to prevent cross-contamination.
- Species-specific reference guides for normal behaviour and physiology.

Procedure

1. **Preparation (5–10 minutes)**
    - Review the previous day's log for any ongoing concerns.
    - Ensure the enclosure environment is stable (temperature, humidity, water quality, lighting) as per species requirements. Note any deviations, as these may contribute to observed changes.
    - Approach the enclosure quietly to minimise disturbance and stress to the animals.
2. **General Colony Observation (5–10 minutes)**
    - Observe the colony as a whole from a distance. Note overall activity levels, grouping patterns, and any obvious signs of distress (e.g., unusual clustering or isolation).
    - Check for environmental indicators that may affect welfare, such as uneaten food, fouled water, or substrate abnormalities.
3. **Individual or Group-Specific Inspection (10–20 minutes per enclosure)**
    - Systematically examine each animal or small group, using the key indicators outlined in the companion guide.

- Record observations in the log spreadsheet, noting presence (yes/no) and any descriptive notes for each indicator.
- Pay particular attention to subtle changes, as early signs may be mild (e.g., slight reduction in movement rather than complete immobility).
- If possible, compare with baseline data for the individual or species.

4. **Key Indicators to Monitor** Refer to the companion guide for detailed descriptions and causes. Briefly:
    - *Altered Feeding*: Reduced or abnormal intake.
    - *Anomalous Behaviour*: Any deviation from species-typical actions.
    - *Altered Locomotion*: Changes in movement patterns.
    - *Oedema*: Swelling, measured as a percentage of body area if quantifiable.
    - *Altered Movements*: Increased or decreased non-locomotory actions.
    - *Retained Moult*: Incomplete shedding of skin.
    - *Altered Respiration*: Abnormal breathing rates.
5. **Post-Inspection Actions (5 minutes)**
    - Summarise findings and flag any anomalies (e.g., indicators present in >10% of the colony).
    - If indicators suggest distress or pain (e.g., persistent altered respiration or oedema), isolate affected individuals and consult a veterinarian immediately.
    - Clean equipment and update enclosure maintenance records.
6. **Frequency and Follow-Up**
    - Conduct inspections at least once daily; increase to twice daily if concerns arise.
    - Track trends over time using the spreadsheet to identify gradual changes.
    - Train all staff on this protocol to ensure consistency.

Safety Notes

- Avoid handling unless necessary, as this can cause stress.
- Report any human health risks (e.g., zoonotic concerns) to appropriate authorities.

This protocol should be reviewed annually or following significant colony changes.