analytical methods, and the dissemination of successful case studies to bridge the gap between research and conservation practice.

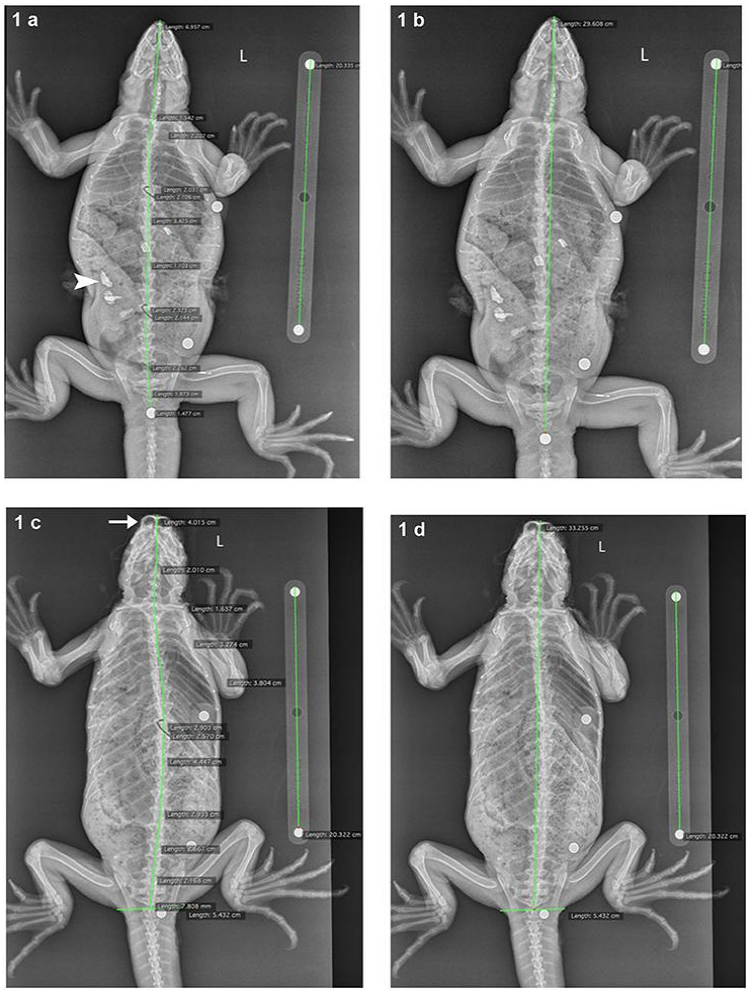

Figure 1 Dorsoventral radiographs of marine iguanas, demonstrating the measurements methods (Adopted from Lewbart et al., 2018)
Image caption: The 20 cm calibration bar is visible adjacent to each iguana (top: 4653144B3E; bottom: no microchip ID). In Method 1 (a) snout-vent length (SVL) was measured using interconnected linear (regions of interest) ROIs bisecting the skull and vertebrae; this technique corrected for small angulations in the spine from the leading edge of the snout to the leading edge of the BB at the vent. In Method 2 (b) SVL was measured using a single linear ROI from snout to vent BB, with no correction for spinal angulation. (c,d) demonstrate the adjustment of these two measurement methods if the vent BB was not located so that it centrally bisected the vertebra at this level. In such cases, a transverse linear ROI was placed at the leading edge of the vent BB, and the caudal-most linear ROI measuring SVL was extended to the central aspect of this transverse ROI (Method 1 adjusted = c, Method 2 adjusted = d). In (a) angular mineral opaque fragments are visible within the gastrointestinal tract (arrowhead), consistent with ingested substrate. In (c) the frontal sinuses (arrow) are prominently visible, indicating foreshortening of the iguana, secondary to head position (Adopted from Lewbart et al., 2018)

7.2 Remote sensing and ecological monitoring

Remote sensing and ecological monitoring are innovative approaches that enhance the understanding and management of reptile habitats. These technologies allow for the large-scale assessment of habitat changes, species distributions, and ecological dynamics, which are critical for conservation efforts. For example, environmental DNA (eDNA) has been used to detect species presence and measure community diversity across various spatial and temporal scales. This method is particularly valuable for monitoring elusive or rare reptile species, providing data that can inform conservation listings and recovery planning (Nordstrom et al., 2022).

Additionally, integrating landscape and molecular tools has proven effective in reserve design, particularly on islands with high levels of endemism. By predicting species occurrences and mapping spatial phylogenetic