Professional Zooarchaeology Group (PZG) Minutes

Bird Bones, Natural History Museum, Tring, 14th July 2007

On Saturday 14th July, members of the PZG demonstrated their commitment to the discipline by locking themselves in a dark seminar room on what was, perhaps, the only sunny day of summer 2007. But it was worth it. Once again the organisers – this time Jo Cooper, Judith White, Stig Walsh and John Stewart – put on an interesting and very informative programme.

First up was Jo Cooper, who gave an excellent talk on the potential and problems of archaeological bird analysis – dedication and a good reference collection are the key. We were given a virtual tour of the bird skeleton, illustrated with Jo's own drawings, and she was able to explain the relative merits of the different skeletal elements: which survive well archaeologically, which are easy to identify, which morphological features are the most diagnostic. The top 9 elements for archaeological analysis are:

1) Tarsometatarsus – preserves well, very distinctive
2) Coracoid – complicated anatomy but highly identifiable as a result
3) Tibiotarsus – distal end is particularly useful
4) Carpometacarpus – especially the proximal end
5) Ulna – proximal articulation useful and morphology of the shaft helpful
6) Humerus – whole bone exhibits useful characteristics
7) Femur – reasonable survival and fairly distinctive morphology
8) Sternum – decent survival of leading edge and the rib articulations good for large birds
9) Pelvis/synsacrum – potentially useful, even when fragmented.

Examination of element morphology should be used in conjunction with metrical analysis but, importantly, it is preferable to emphasize characteristics than size, which is influenced by too many factors: notably sex, geography and time – many species were much bigger in the Pleistocene for instance. But, above all, don't force an identification – if you're unsure, it's better to leave something as *Genus* sp., *Genus* cf. *species* or *Genus species1/species2* than risk a misleading definitive identification.
The second speaker of the day was Stig Walsh, a palaeontologist from the University of Portsmouth. He introduced us to the concept of bird bone identification in 'deep time' and demonstrated that the idea that 'bird bones don't preserve' is not entirely true – if it were, he wouldn't have a job. It's all about skeletal structure, bone density and meat distribution which in turn is dictated by the behavioural ecology of the species. When we find an abundance of wing elements archaeologically, we should perhaps consider natural taphonomic processes (the fact that that the wing is a strong structural unit, contains lots of sinew and is unattractive to scavengers as it carries little meat) rather than interpreting the assemblage as 'primary butchery' or 'feather exploitation'. Stig reinforced Jo's points about element identification with a case-study about penguin tarsometatarsi. He showed that these elements preserve very well and that a seemingly homogenous assemblage may contain a variety of species that can be separated with the application of geometric morphometrics (it's not as scary as it sounds and free computer software are available on-line if you want to dabble in shape analysis).

In the afternoon we were given a brief talk about the work of the British Ornithologist's Union (BOU) Records Committee, or more specifically the Category F sub-committee. This sub-committee is compiling a record of bird species recorded – palaeontologically, archaeologically and historically - between c.1800 BP to AD 1800. A full report of their work can be found online at www.blackwell-synergy.com/doi/full/10.1111/j.1474-919x.2007.00727.x To help the committee, Jo has requested that the zooarchaeological community are pro-active in publishing evidence of early or late examples of the species on the list. You identifications must be verifiable and perhaps

the best thing might be to take a trip to Tring yourself. When there, you will be able to use their extensive collections and get advice from the specialists. If you ask very nicely, Judy might even introduce you to the beetles – that's a smell you don't want to miss.

Minutes contributed by Naomi Sykes

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