



http://app.pan.pl/SOM/app71-Liaw_Tsai_SOM.pdf

SUPPLEMENTARY ONLINE MATERIAL FOR

The first fossil of the extant leatherback sea turtle *Dermochelys coriacea*

Yi-Lu Liaw and Cheng-Hsiu Tsai

Published in *Acta Palaeontologica Polonica* 2026 71 (2): 267-271.
<https://doi.org/10.4202/app.01340.2026>

Supplementary Online Material

SOM 1

Figure S1. A simplified phylogeny showing the extant Chelonioidea according to Duchene et al. (2012).

Figure S2. The measured widths in this study.

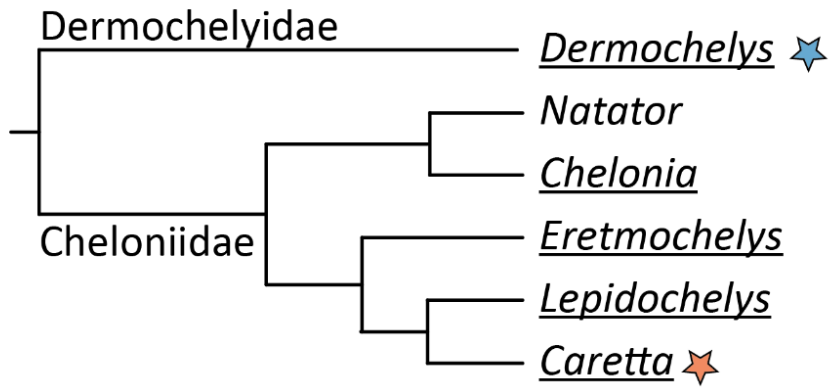
Figure S3. The variation of the humeri of *Dermochelys coriacea* in the intertubercular view.

Table S1. Humeral measurements of fossil and extant *Dermochelys coriacea*.

References

SOM 2

3D model of NTUM-VP 250802 available at <https://zenodo.org/records/18545763>



★ Early Pleistocene

★ Middle to Late Pleistocene

Fig. S1. A simplified phylogeny showing the extant Chelonioidae according to Duchene et al. (2012). The underlined text indicates the occurrence of extant sea turtles in Taiwan waters; the star marks with two colors indicate the presence of fossil sea turtles from different geological ages of Taiwan (Liaw et al. 2025; this study).

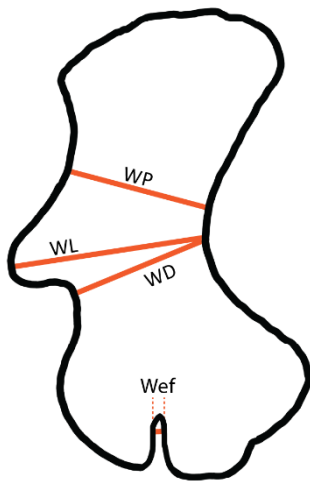


Fig. S2. The measured widths in this study. Wef, width of the ectepicondylar foramen; WD, narrowest width of distal portion; WL, width between lateral process to concavity of ulnar side; WP, narrowest width of proximal portion.

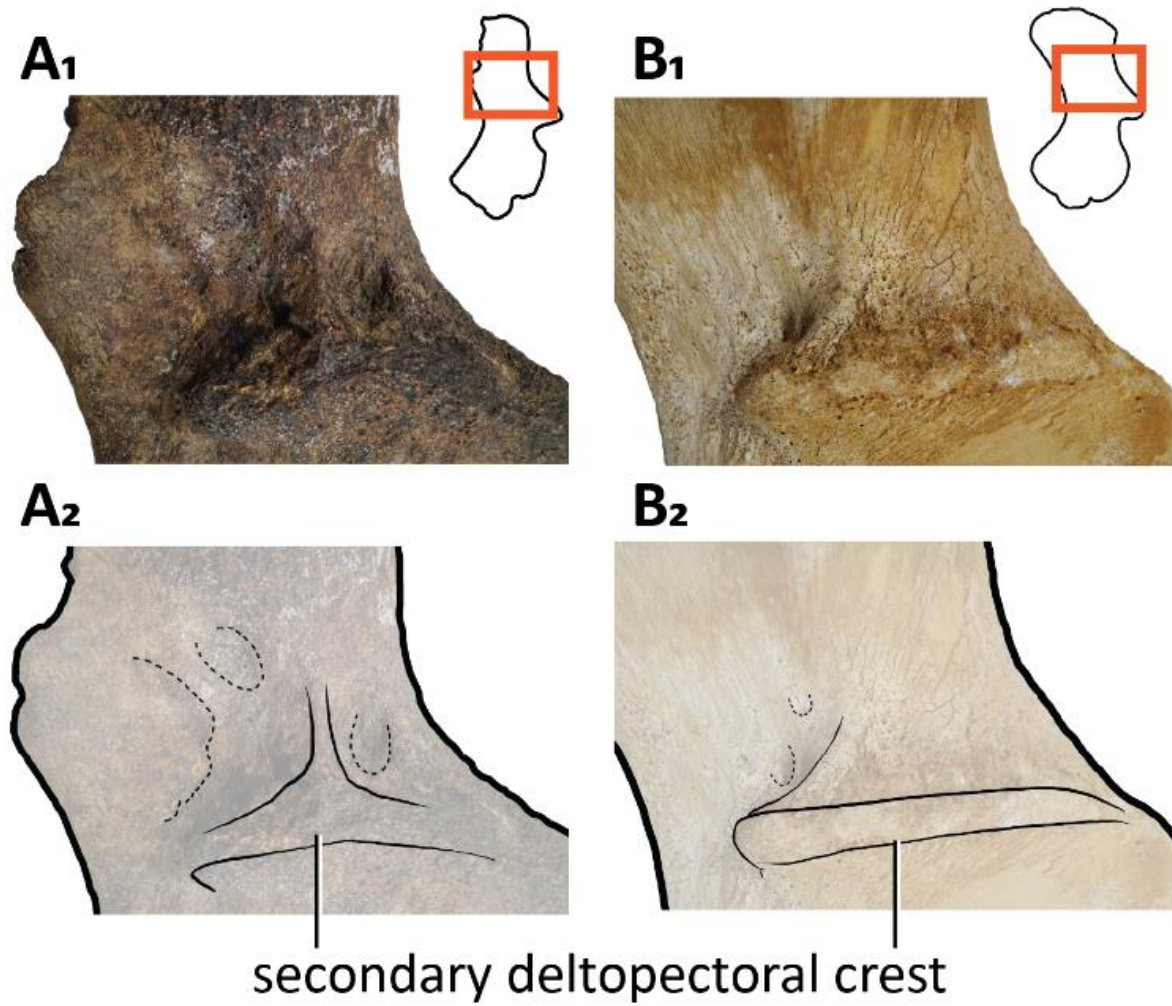


Fig. S3. The variation of the humeri of *Dermochelys coriacea* in the intertubercular view. The line indicates the ridge, and the dashed line indicates the fossa. **A.** Fossil *Dermochelys coriacea* (NTUM-VP 250802). **B.** Extant *Dermochelys coriacea* (NTUM-VP 2011301). **A1, B1.** Photographs. **A2, B2.** Illustrations.

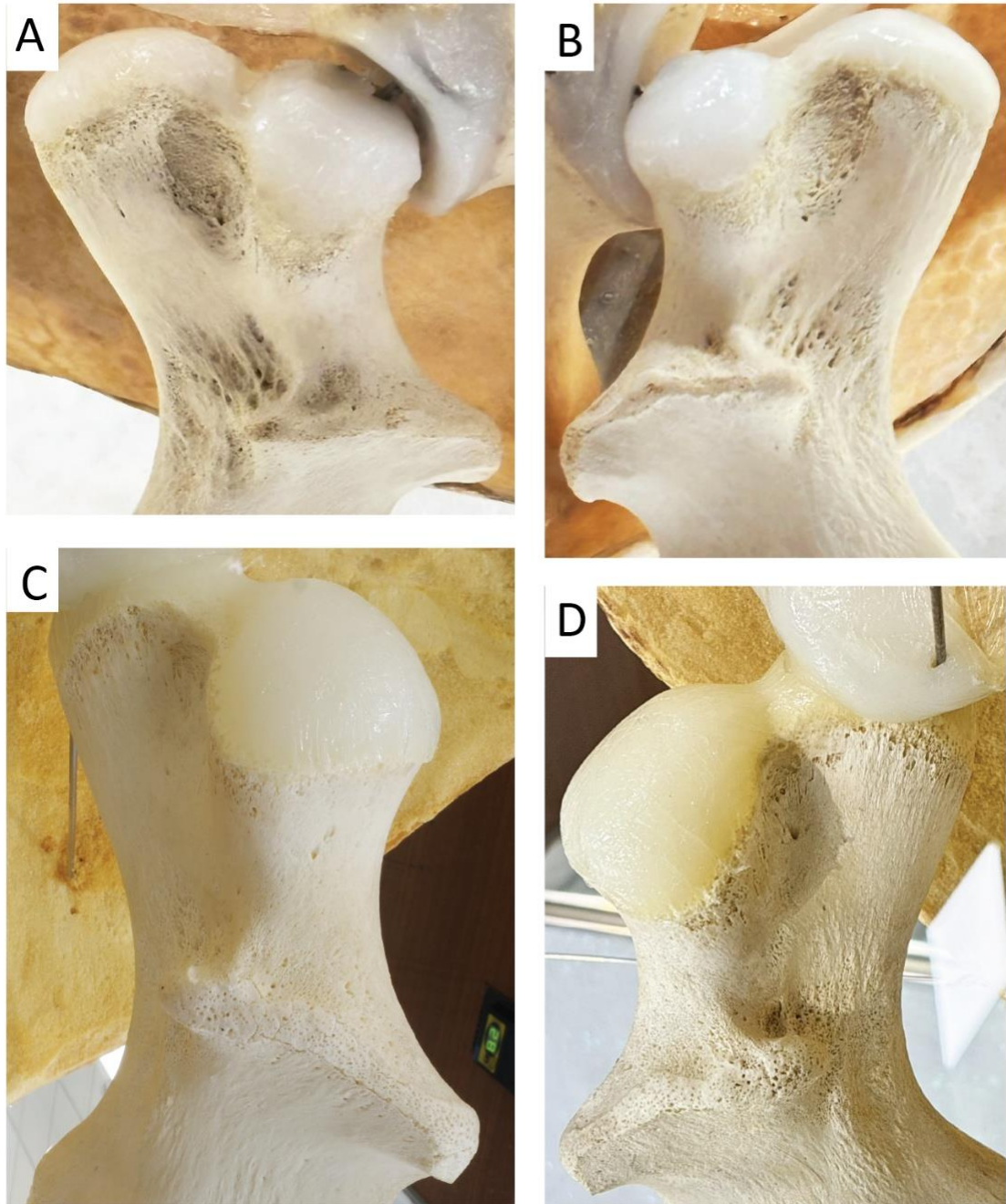


Fig. S4. The proximal portions of the humeri of *Dermochelys coriacea* in the intertubercular view. **A, B.** Humeri of the NTM specimen (CCL unknown; CCW 105 cm; SCL 163cm; SCW 93 cm). **C, D.** Humeri of the NMMST specimen (CCL 139 cm; CCW 97 cm; SCL 127.5 cm; SCW 70 cm). **A, C.** Left humeri. **B, D.** Right humeri. CCL, curved carapacial length; CCW, curved carapacial width; SCL, straight carapacial length; SCW, straight carapacial width.

Table S1. Humeral measurements (in mm) of fossil and extant *Dermochelys coriacea*. Wef, width of the ectepicondylar foramen; WD, narrowest width of distal portion; WL, width between lateral process to concavity of ulnar side; WP, narrowest width of proximal portion.

	WP	WL	WD	Wef
NTUM-VP 250802	78	115	80	10
NTUM-VP 2011301 Subadult individual	77	106	77	7

References

Duchene, S., Frey, A., Alfaro-Núñez, A., Dutton, P.H., Gilbert, M.T.P., and Morin, P. A. 2012. Marine turtle mitogenome phylogenetics and evolution. *Molecular phylogenetics and evolution* 65: 241–250.

Liaw, Y.-L., Chuang, C.-K. and Tsai, C.-H. 2025. The first fossil loggerhead sea turtle (Cheloniidae: *Caretta*) from the North Pacific and its nannofossil biostratigraphy. *Swiss Journal of Palaeontology* 144: 42.