

Structure and Composition of the Cuticle of the Goose Barnacle *Pollicipes pollicipes*: A Flexible Composite Biomaterial

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Supplementary material

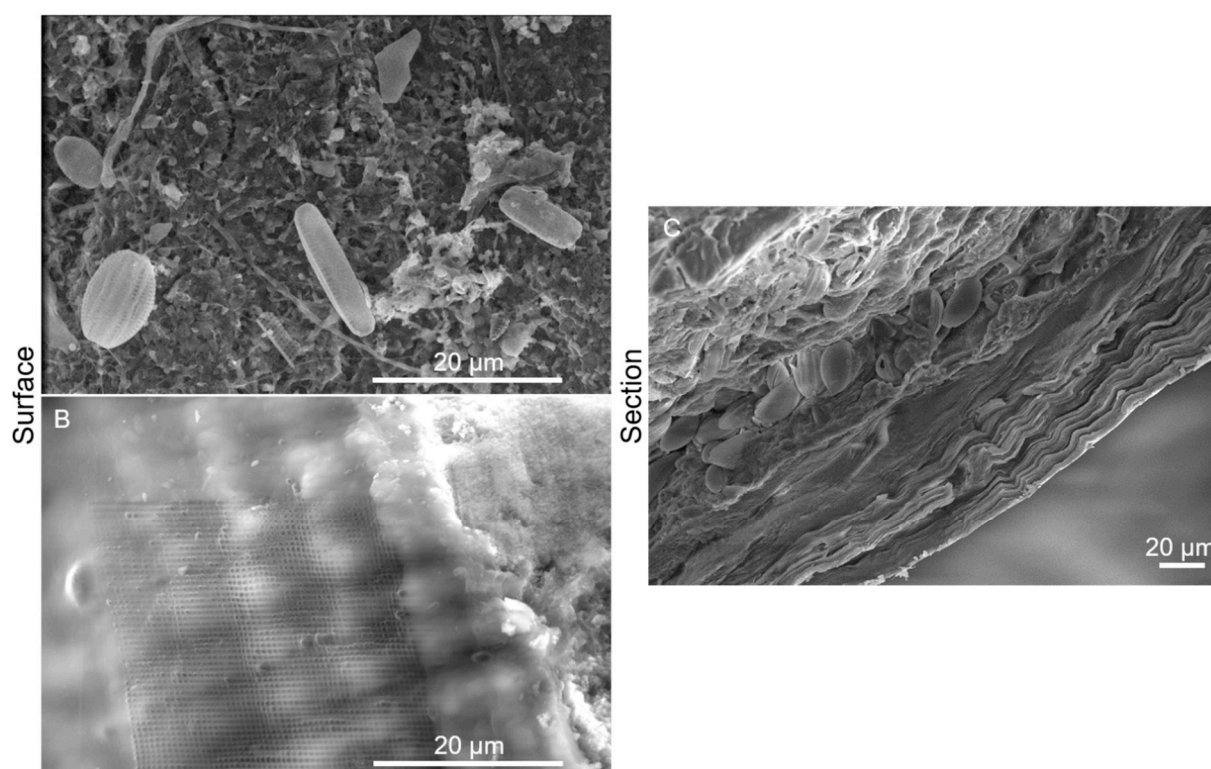


Figure S1. Imaging of the cuticle of *P. pollicipes*. A and B: ESEM of the surface of the cuticle showing the establishment of diatoms (A) and bacteria (B); C: SEM of the cross-transversal section exposing the outer layer of the cuticle with diatoms.

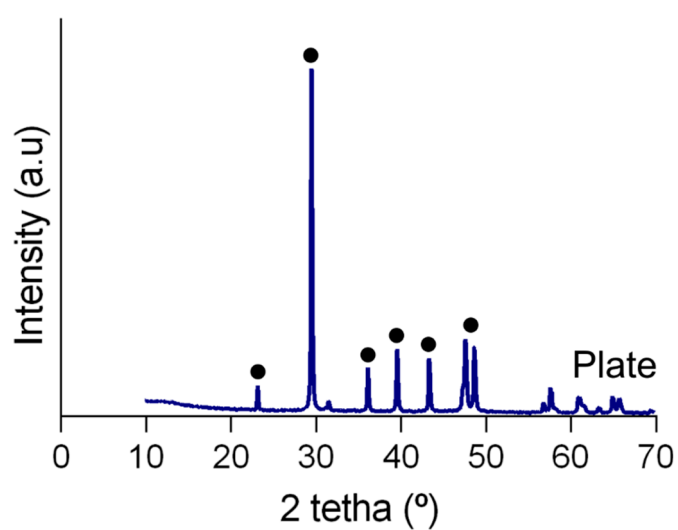


Figure S2. X-ray powder diffraction of the plate of *P. pollicipes*. Full circle: peak corresponding to calcite (ICDD #01-085-1108).

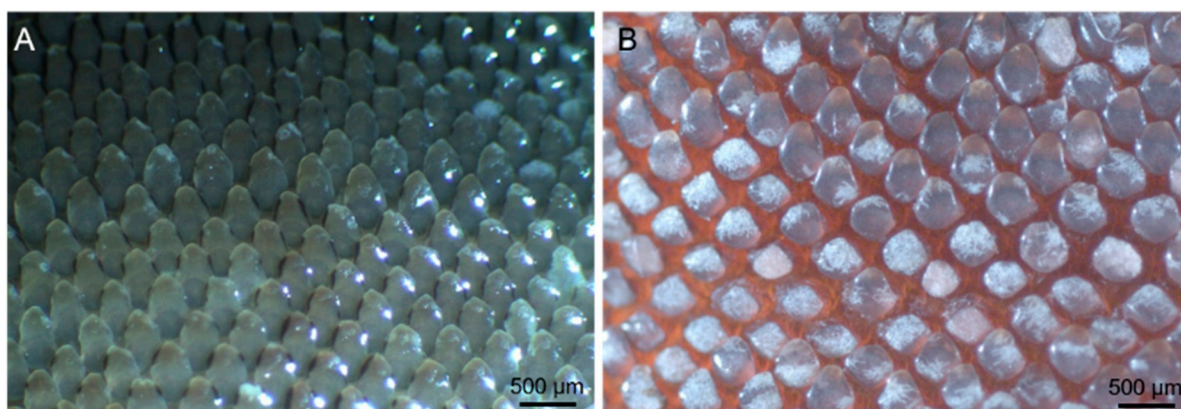


Figure S3. Aspect of the outer surface of the cuticle of *P. pollicipes*. Up-body level (A); low-body level (B).

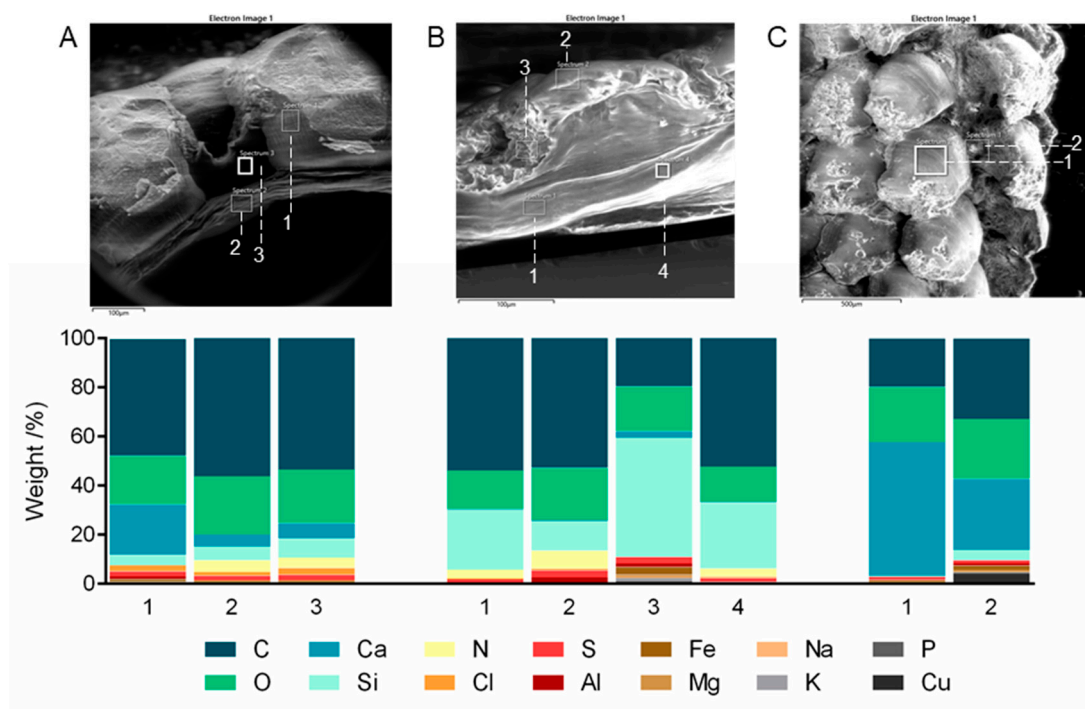


Figure S4. Elemental composition weight (%) of the cross section (A, B) and surface (C) of the untreated cuticle of *P. pollicipes*.

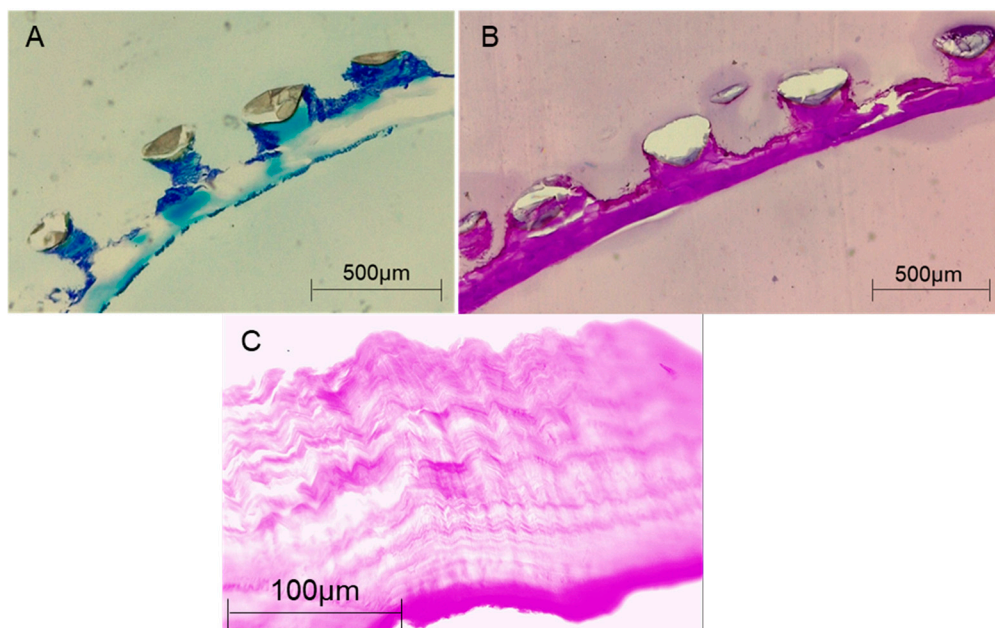


Figure S5. Histological section of the cuticle of *P. pollicipes*. A and B: Sections on resin stained with Giemsa (A) and PAS (B) showing a higher distance between scales. C: Section on paraffin stained with PAS (C) showing the pattern of the layers.

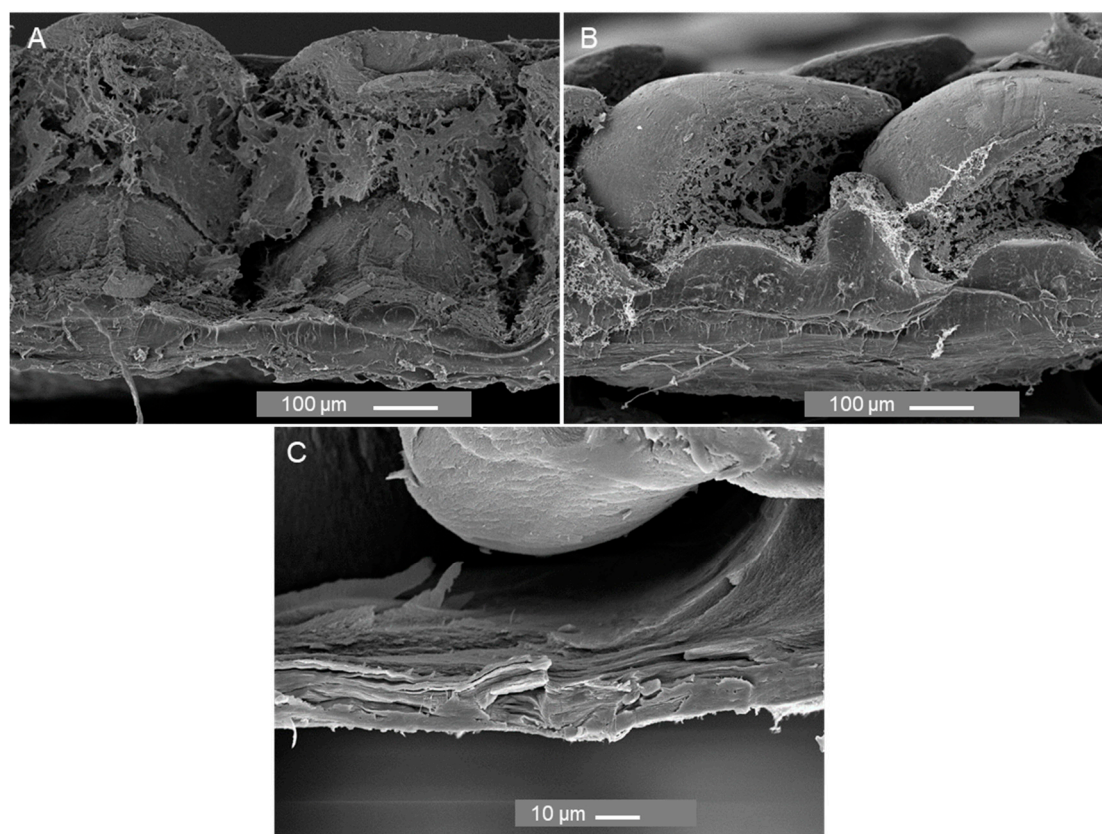


Figure S6. SEM analysis of the cross-section of a transversal (A) and longitudinal cut (B, and C) of the cuticle of *P. pollicipes* at different magnifications. A and B: x150; C: x1000. Note: Dehydration of the samples for SEM observation mode showed the disintegration of the outer cuticular zone which involved the scales as observed in ESEM mode.