APPENDIX 2 SUPPLEMENTAL FIGURES S3–S9

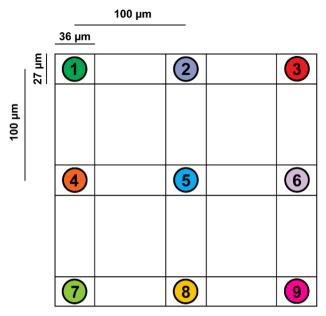


Fig. S3. Experiments and preserved fossil specimens. The 3×3 grid with nine centred points, each at a vertical and horizontal distance of 100 μ m apart were set up at the rear ends of the copper tape pointer away into the matrix. A total area of ~8748 μ m² (36 μ m × 27 μ m × 9) was scanned for microbodies in the matrix of each specimen.

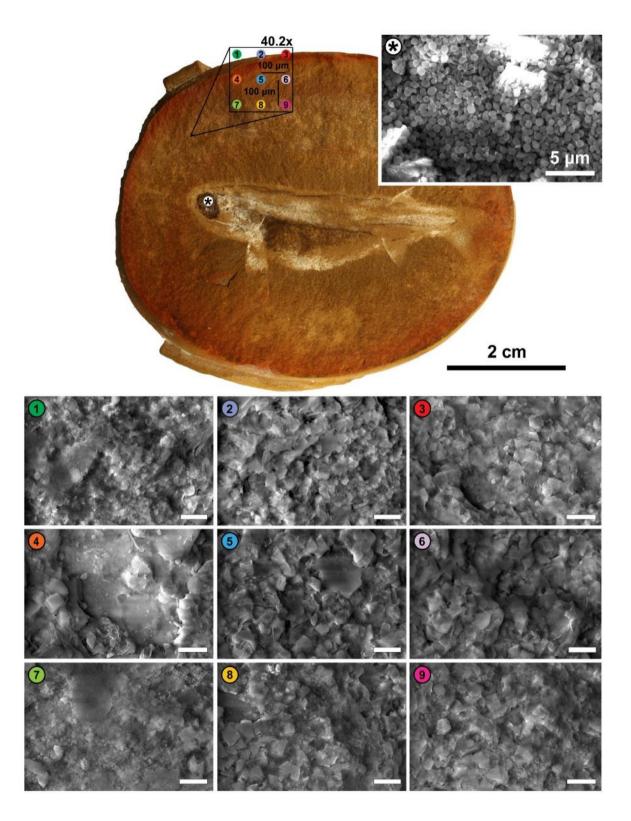


Fig. S4. SEM bedding plane survey of fossil bedding plane in the 300 Myr old spiny shark *Acanthodes* sp. (ROM56807) from Mazon Creek, USA for microbodies. The asterisk indicates the region within the outline of the eye which contains a fabric of microbodies (inset). Contrarily, none of the grid-points (1-9) show any evidence of such microbody like structures in the matrix. Scale bars on each of the grid images are $5 \mu m$.

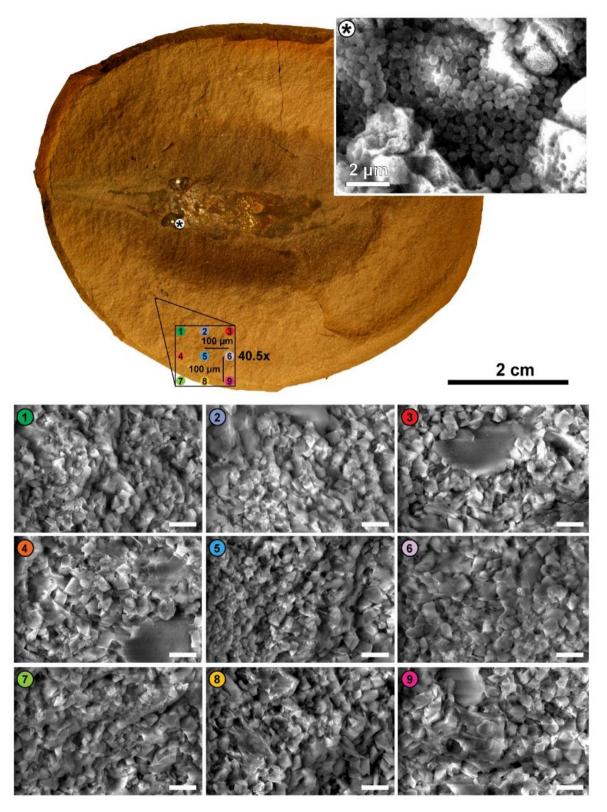


Fig. S5. SEM bedding plane survey of fossil bedding plane in 300 Myr old elasmobranch shark *Bandringa rayi* (ROM56789A), from Mazon Creek, USA for microbodies. The asterisk indicates the region within the outline of the eye which contains a fabric of microbodies (inset). Contrarily, none of the grid-points (1-9) show any evidence of such microbody like structures in the matrix. Scale bars on each of the grid images are $5 \, \mu m$.

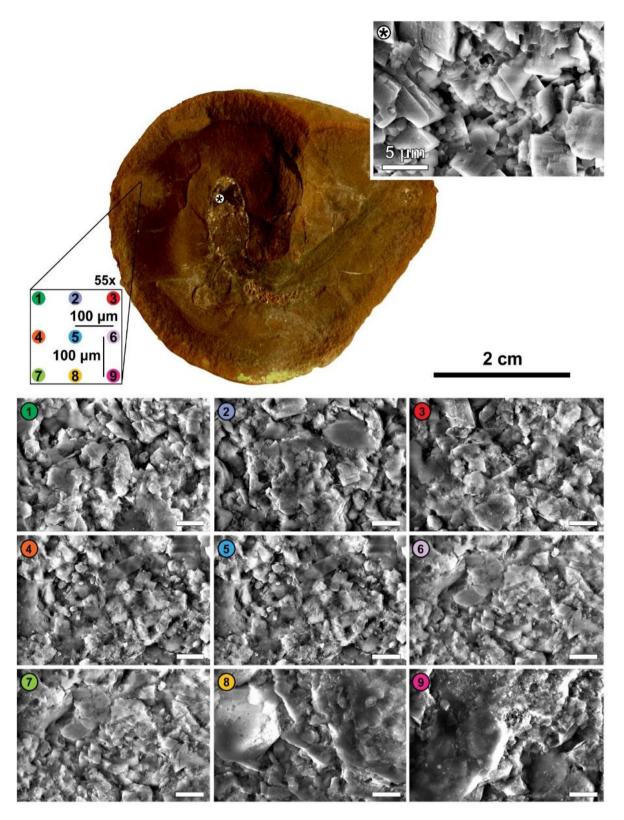


Fig. S6. SEM bedding plane survey of fossil bedding plane in the 300 Myr old spiny shark *Acanthodes* sp. (PF11509) from Mazon Creek, USA for microbodies. The asterisk indicates the region within the outline of the eye which contains a fabric of microbodies and microbody imprints (inset). Contrarily, none of the grid-points (1-9) show any evidence of such microbody like structures in the matrix. Scale bars on each of the grid images are $5 \mu m$.

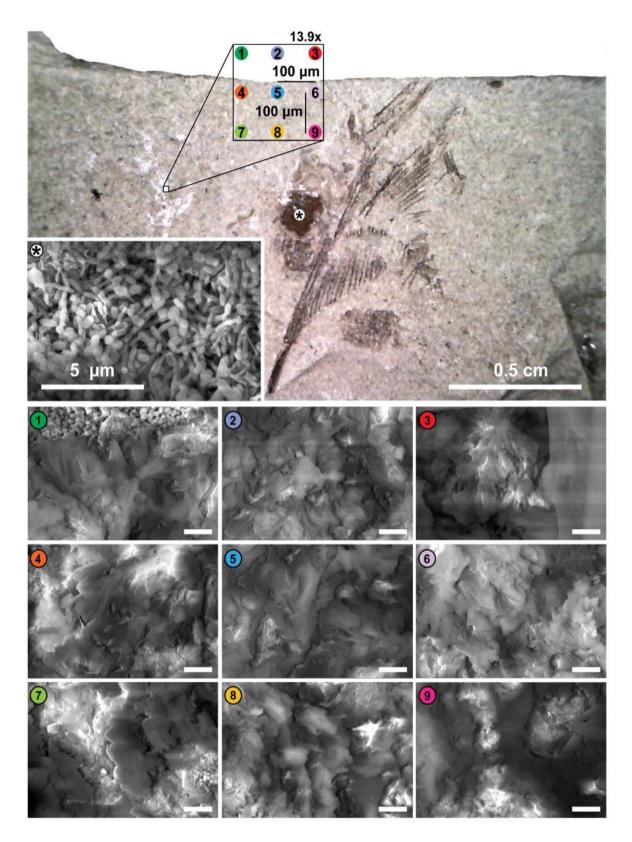


Fig. S7. SEM bedding plane survey of fossil bedding plane in a \sim 50 Myr old caproid fish-*Antigonia* sp. (unaccessioned), from Ølst formation, Denmark for microbodies. The asterisk indicates the region within the outline of the eye which contains a fabric of microbodies (inset). Contrarily, none of the grid-points (1-9) show any evidence of such microbody like structures in the matrix. Scale bars on each of the grid images are 5 μ m.

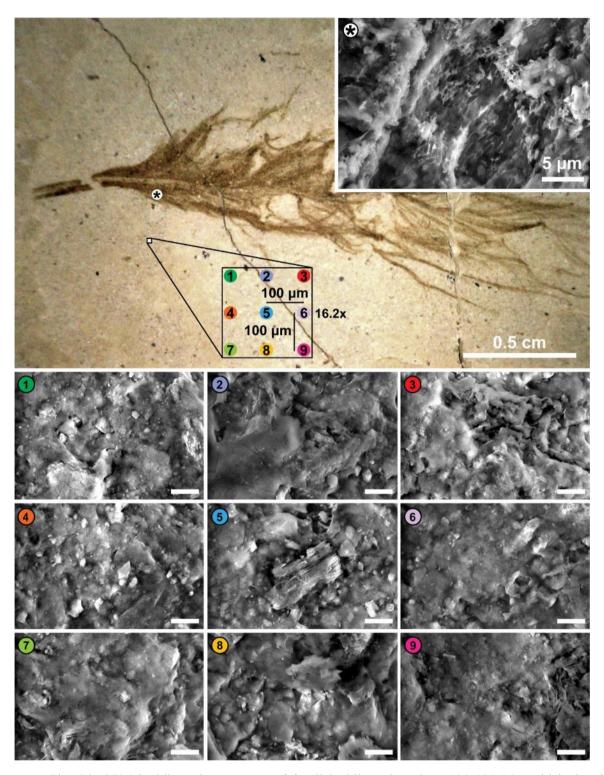


Fig. S8. SEM bedding plane survey of fossil bedding plane in a 131-120 Myr old isolated feather (IVPP V15388B) from the Jehol region, N.E. China for microbodies. The asterisk indicates the region within the outline of the feather which contains a fabric of microbody imprints (inset). Contrarily, none of the grid-points (1-9) show any evidence of such microbody like structures in the matrix. Scale bars on each of the grid images are $5~\mu m$.

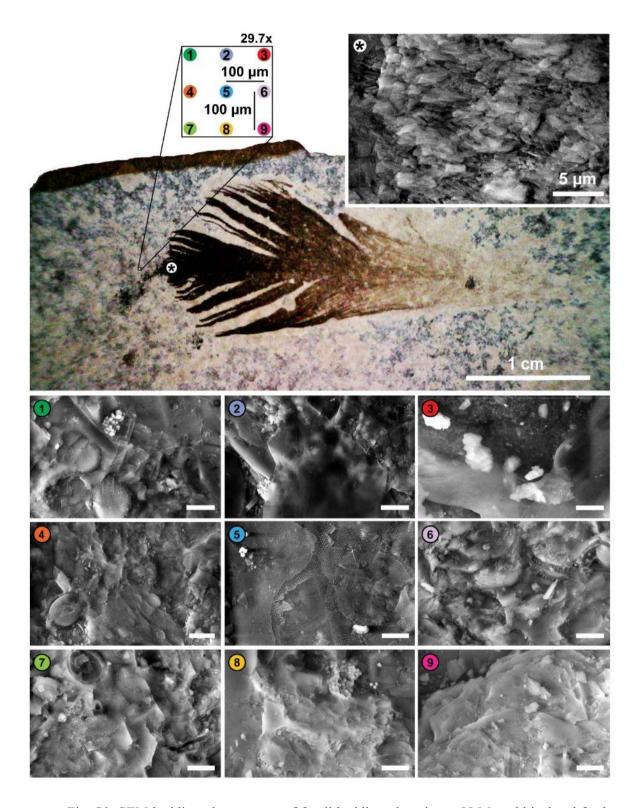


Fig. S9. SEM bedding plane survey of fossil bedding plane in a ~ 55 Myr old isolated feather (MORS-1003) from the Fur formation, Island of Mors, Denmark for microbodies. The asterisk indicates the region within the outline of the feather which contains a fabric of aligned, elongated microbodies (inset). Contrarily, none of the grid-points (1-9) show any evidence of such microbody like structures in the matrix. Scale bars on each of the grid images are 5 μ m.

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