

Supplementary material

Videos:

Videoclip 1. An adult Andean condor *Vultur gryphus* with white wing feathers created by sheen structures. Available at <<http://ibc.lynxeds.com/video/andean-condor-vultur-gryphus/close-male-sunning-and-then-walking>>.

Videoclip 2. Two adult marabous *Leptoptilos crumeniferus*, the first one showing “breeding” plumage and the second one in “non-breeding” plumage. Note how the appearance of these “plumages” can be differentiated by the degree of abrasion in the sheen structures that create a white line to the edge of the wing covert. Available at <<http://ibc.lynxeds.com/video/marabou-leptoptilos-crumeniferus/two-adults-first-one-breeding-plumage-white-edged-wing-covert>>.



Figure S1. White storks *Ciconia ciconia* showing sheen feathers on their black flight feathers.

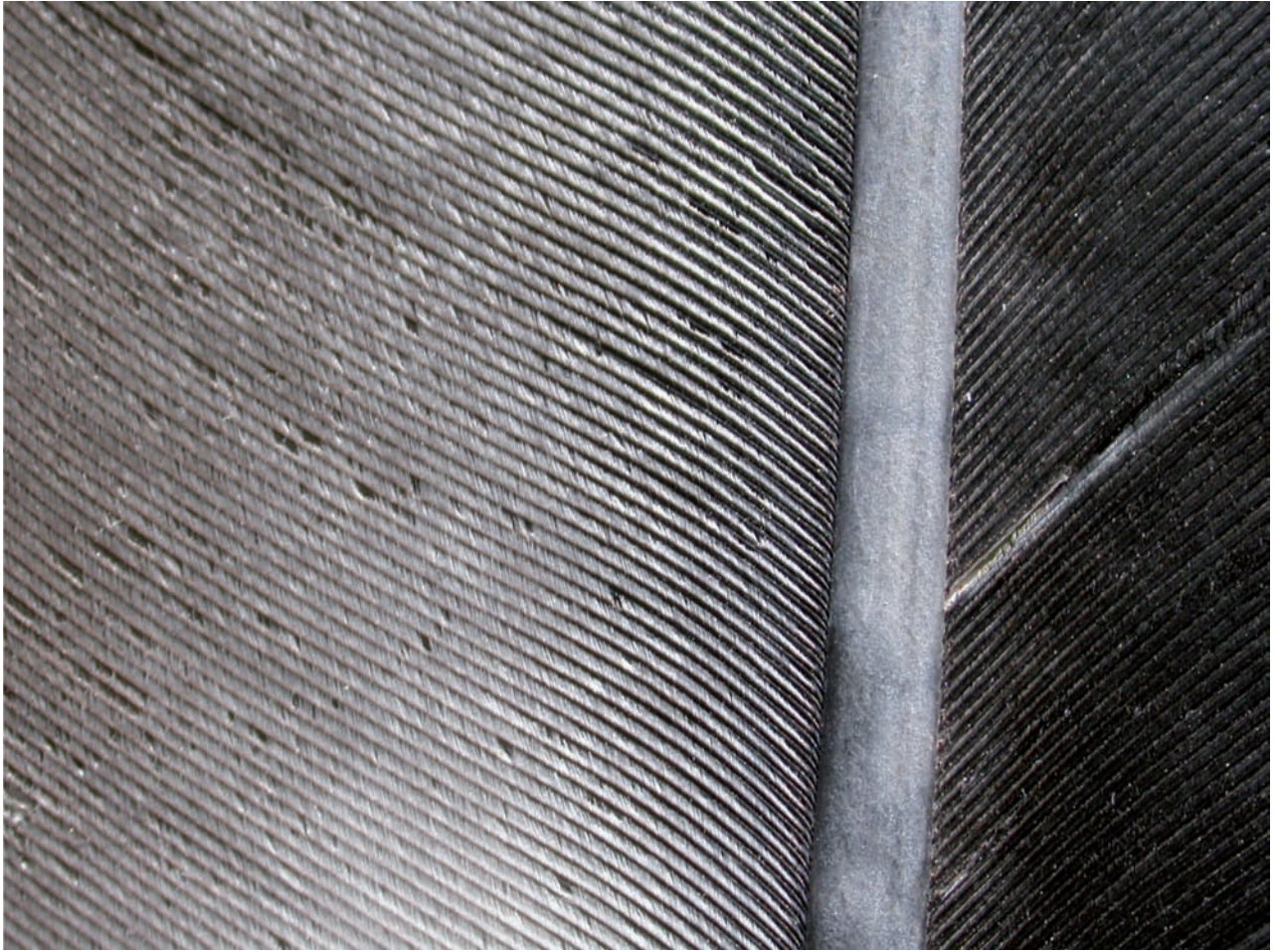


Figure S2. Detail of sheen barbules on a bearded vulture *Gypaetus barbatus* primary feather. Note how the lack of white barbule tips at the right part of the feather creates a darker coloration as compared to the left part.

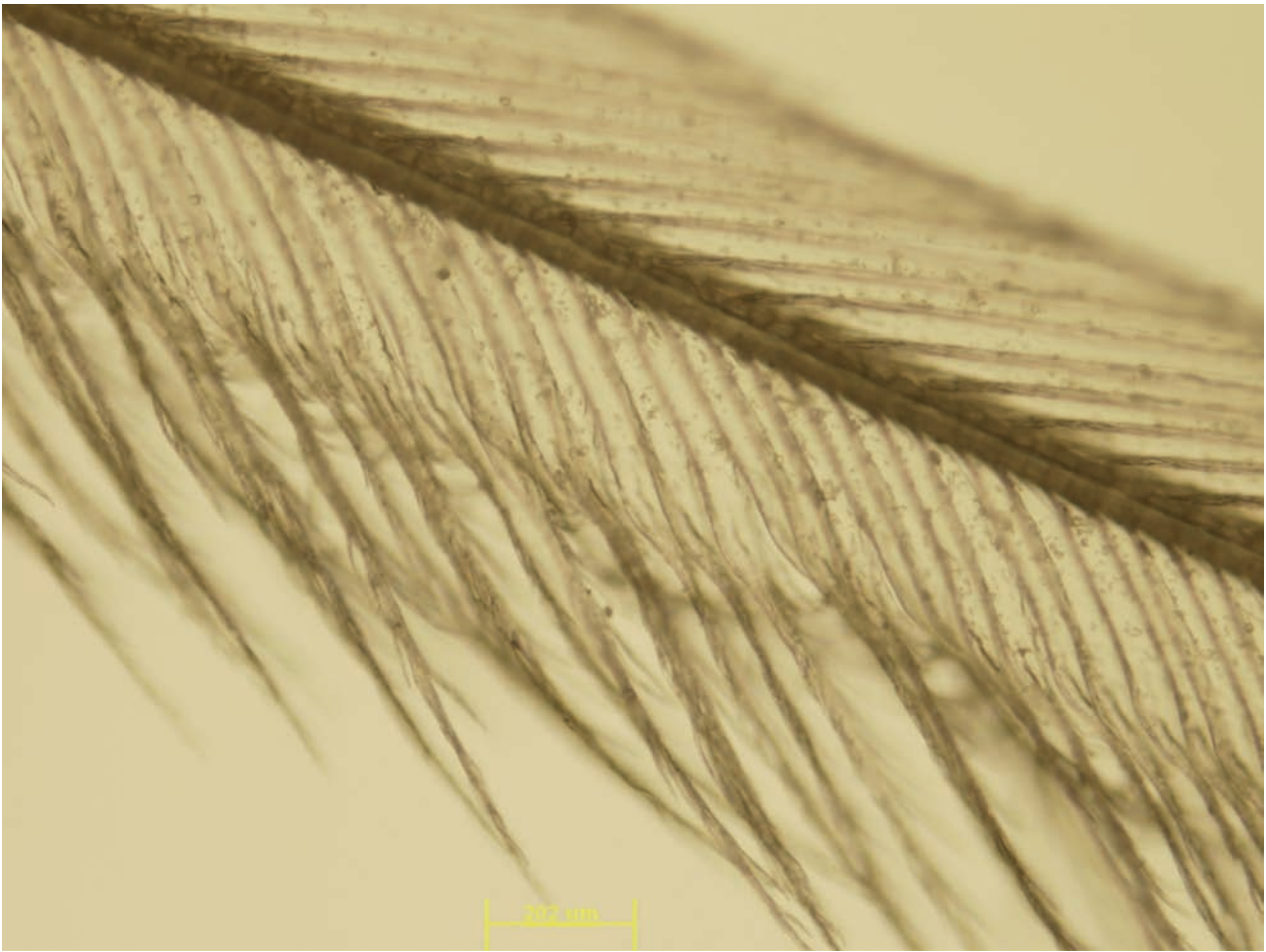


Figure S3. Light microscope image showing sheen barbs from a bearded vulture *Gypaetus barbatus* primary feather.

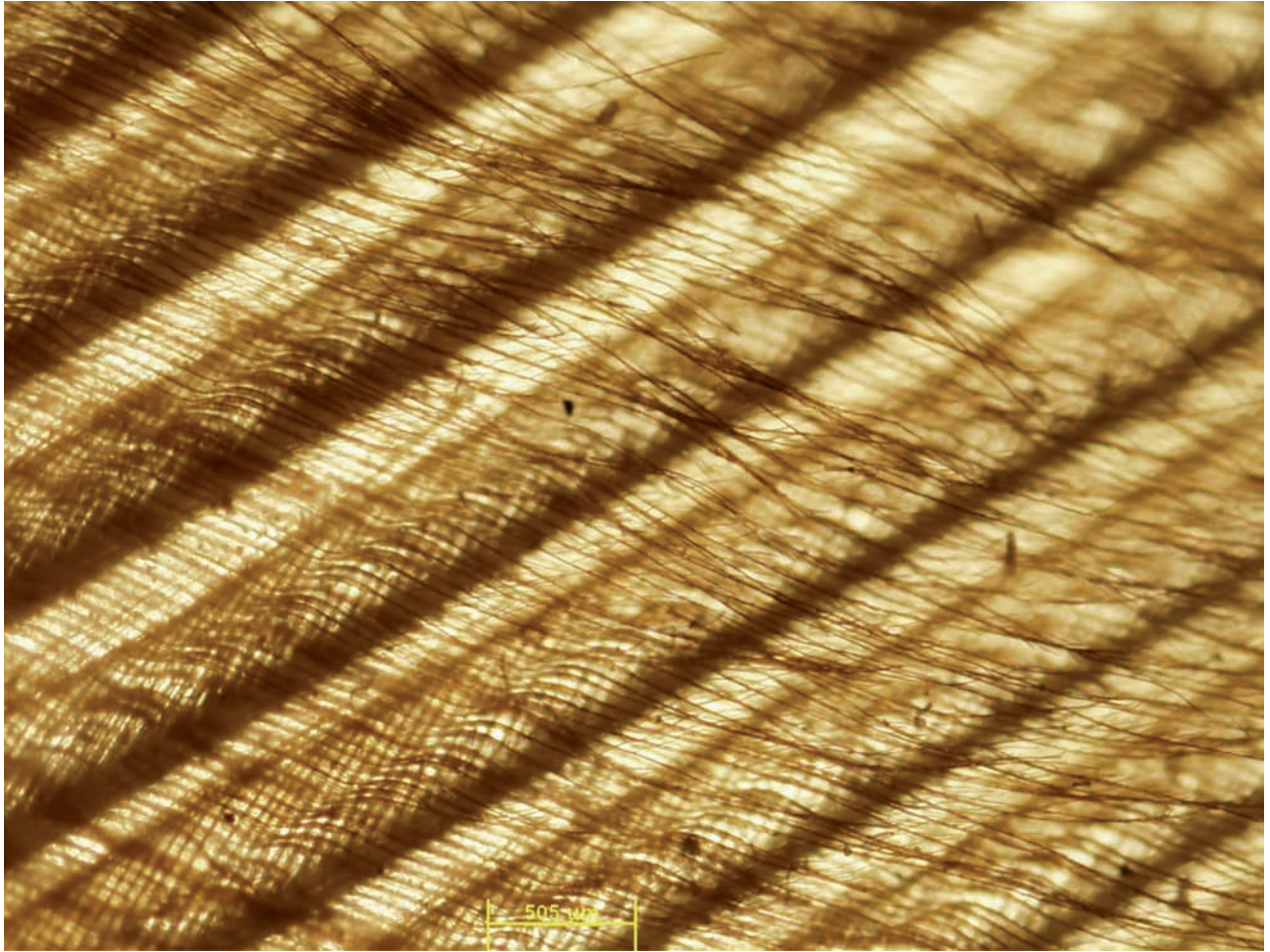


Figure S4. Light microscope image showing barbs from an eagle owl *Bubo bubo*. These barbs are long and twisted, but note the difference in their disposition with respect to sheen barbs shown in Fig. S3.



Figure S5. Andean condor *Vultur gryphus* secondary feather. Note how the lack of sheen barbule tips creates the black colour of the feather edge.



Figure S6. Detail of a hen harrier *Circus pygargus* head showing sheen barbules on its feathers.