



Smithsonian Institution
National Museum of Natural History

Zoë Keliher
National Transportation Safety Board
Senior Aviation Accident Investigator
Portland, Oregon 97209
[REDACTED]

20 December 2017

RE: Smithsonian Feather Lab Case #CV25846

FINAL REPORT

Dear Ms. Keliher,

Numerous pieces of windscreen from an accident that occurred on 19 October 2017 near Bowie, Arizona were received by the Smithsonian Institution's Feather Identification Lab on 27 October 2017. Additional aircraft pieces from this accident were sent to the National Transportation Safety Board headquarters in Washington, DC and were sampled on 28 November 2017.

Eight (8) samples from various windscreen pieces were submitted for DNA analysis. None of the samples contained avian DNA.

A thorough microscopic examination was conducted on all of the aircraft pieces received from this accident and a total of thirty-eight (38) microslides were prepared from the material. Six (6) different microslides contained feather fragments (photos below). The feather material consisted of two pennaceous feather parts and four downy feather parts. None of the feather fragments were diagnostic to bird species or group, however, some bird Orders can be excluded based on the microscopic structures of the downy barbules found in the samples. The downy feather characteristics observed in feathers from this case are not consistent with Galliformes (turkey, chicken), Anseriformes (ducks), Columbiformes (Doves), or Passeriformes (perching birds).

Good luck with this investigation, let us know if you have any questions.

Sincerely,

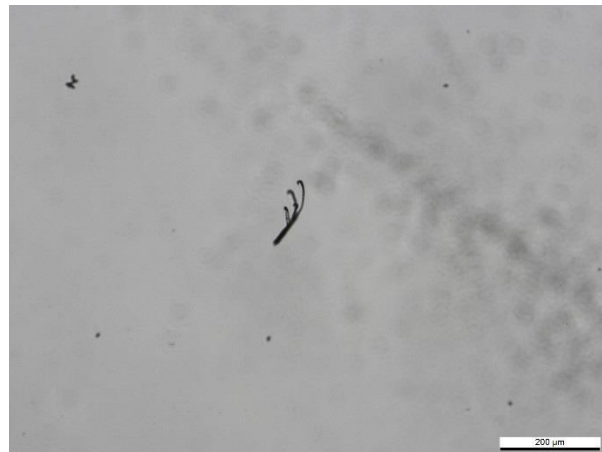
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Carla J. Dove, Ph.D.
Feather Identification Lab
Smithsonian Institution
NHB E-600, MRC 116

Photos:



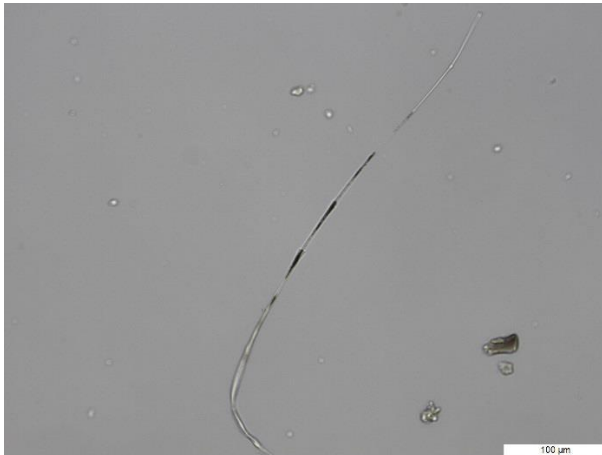
Pennaceous feather barb #1



Partial pennaceous feather barb #2.



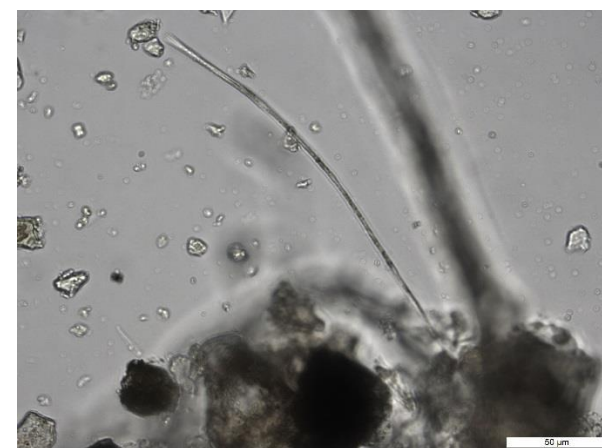
Downy feather barbule #1



Downy feather barbule #2



Down feather barbule #3



Downy feather barbule #4.