



NATIONAL
MUSEUM *of*
NATURAL
HISTORY

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

26 October 2018

RE: #WPR18FA195

Smithsonian Feather Lab Case #180830.25

FINAL REPORT

Dear Ms. Keliher,

A large box containing 5 bags of windscreen shards and aircraft swipes from an accident that occurred on 13 July 2018 near Deer Park, Washington were received by the Smithsonian Institution's Feather Identification Lab on 30 August 2018. The box was packed and shipped by Mr. Fabian Salazar.

Twenty-one (21) samples from various windscreen pieces and swipes were submitted for DNA analysis. None of the samples contained avian DNA.

A thorough microscopic examination was conducted on all windscreen pieces and swipes received from this accident and forty (40) microslides were prepared from the material. Nine (9) different microslides from two (2) separate bags with windscreen shards contained feather fragments (photos below). Feather remains were found in one bag (labeled by us as Bag 1) that contained two sets of gloves with windscreen pieces wrapped in gloves and in another bag (labeled by us as Bag 3). The feather material consisted of one (1) white partial feather tip, two (2) microscopic pennaceous feather parts and seven (7) separate microscopic downy feather barbules. No feather fragments were found in the swipes but very little material was available in these samples.

The white partial feather (Photo 1), and the microscopic downy feather characters including barbule length, spine and nodal morphology (Photos 2 and 3), are consistent with American White Pelican (*Pelicanus erythrorhynchos*).

The weight range of the American White Pelican is 4.54 – 7.72 kg but some weights are reported up to 13.6 kg. Males are heavier than females. Many observations of American White Pelican were reported near the area of Deer Park, Washington during July 2018 to ebird® <https://ebird.org/map> (e.g. 42 birds at Eloika Lake on 1 July; 90 birds at Calspell Lake on 13 July, etc.).

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

Sincerely,

A black rectangular box redacting the signature of Carla J. Dove.

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

Photos:

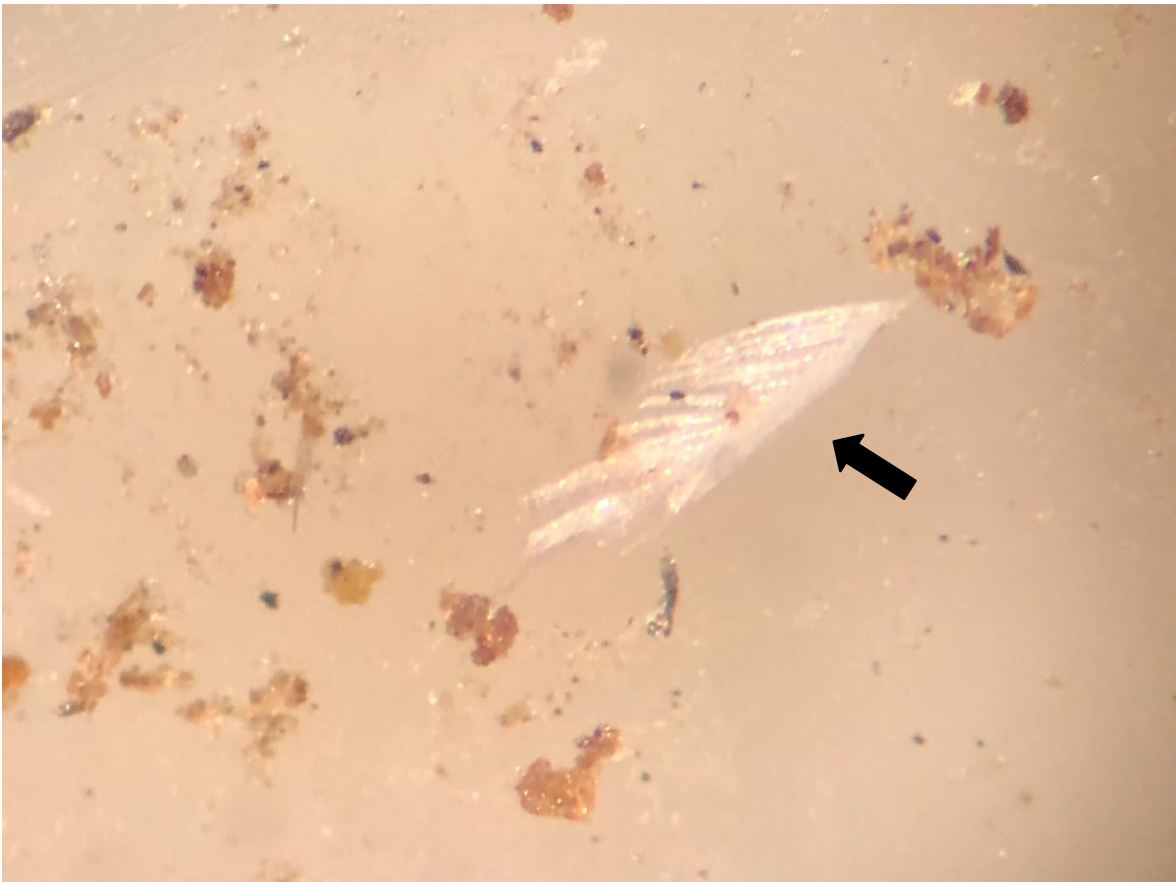


Photo 1. White partial feather (at arrow) found in the windscreen evidence (#WPR18FA195).



Photo 2. Comparison of microscopic characters of barbule length and spine morphology at the base of barbules with American White Pelican (left) and unknown sample (right).

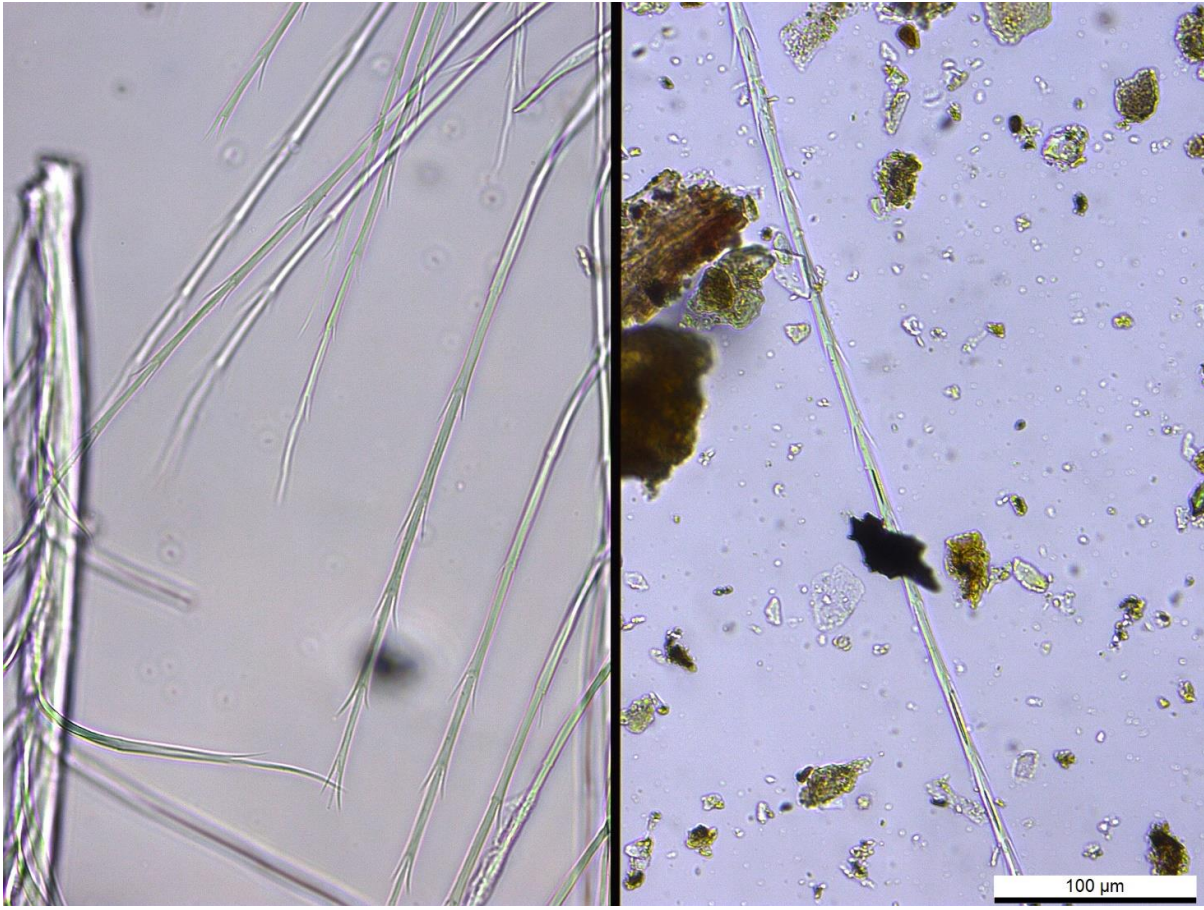


Photo 3. Comparison of microscopic characters of barbule length and spine morphology at the tip of barbules with American White Pelican (left) and unknown sample (right).