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What is "Marabou"?

Identification Guides for Wildlife Law Enforcement No. 8

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According to Webster's Third New International Dictionary (Unabridged), marabou is: "1a) a large stork of the genus *Leptoptilos*; or 1b) a soft feathery fluffy material prepared from the long coverts of marabous or usually from turkey feathers and used especially for trimmings." The association of the general term "marabou" (fluffy decorative feather material) with the marabou stork (*Leptoptilos crumeniferus*) of Africa is due to the very fine, fluffy undertail coverts of that species (Figure 1). Indeed, the genus name *Leptoptilos* derives from the Greek words for fine (*leptos*) and feather (*ptilos*). These feathers were popular in Europe for the millinery trade and for decorative featherwork, especially in the 19th and early 20th centuries.



Figure 1. Marabou stork, *Leptoptilos crumeniferus,* showing the fluffy undertail coverts that were formerly used in millinery and featherwork. Photograph by Liz Leyden.

Today, the fluffy feathers used in such decorative work are typically from turkeys or chickens, and yet they are still referred to as "marabou." These dual meanings have led to confusion related to the regulation of international trade in the marabou stork, *Leptoptilos crumeniferus*, which is listed by Ghana on CITES Appendix III.

The fine undertail coverts of marabou stork can be easily distinguished from the "marabou" feathers of turkey or chicken by a trained observer. The most obvious macroscopic characters are that genuine marabou stork undertail coverts have long, fine, rather tangled barbs with no apparent gap (or "window") along the shaft (Figure 2). In contrast, turkey "marabou" feathers have shorter, denser barbs with an almost wooly texture, and an obvious window along the shaft (Figures 2 and 3).

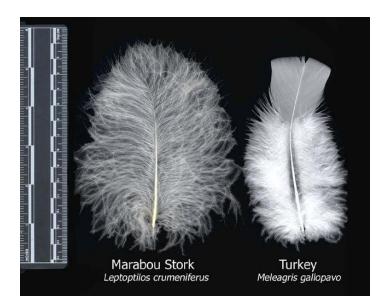


Figure 2. Undertail covert of marabou stork compared to "marabou" feather of white domestic turkey.



Figure 3. Package of dyed turkey "marabou" for decorative use. Note the obvious "window" along the shaft of the feather.

The CITES Trade Database (http://www.unep-wcmc.org) lists 5807 *Leptoptilos crumeniferus* items in export trade between 1984-2004. The breakdown of this trade by item type in the CITES database is as follows: bodies = 4; bones = 1; eggs = 6; feathers = 3298; garments = 51; live = 1588; skin pieces = 830; skins = 6; skulls = 1; specimens = 14; trophies = 8. Thus, 98% of trade listed for this species occurs in three categories: live birds (27% of total trade), feathers (57% of total trade), and skin pieces (14% of total trade).

It is likely that all the feathers, garments, and skin pieces listed in the CITES Trade Database as *Leptoptilos crumeniferus* were in fact turkey feathers described as "marabou" in the sense of the second definition above, namely "soft feathery fluffy material." In analyses of wildlife products at the National Fish and Wildlife Forensics Laboratory, actual marabou stork feathers have never been encountered. However, turkey "marabou" feathers are often seen, in uses ranging from garments to feather boas to trim on masks to fishing flies (Figures 4 and 5).



Figure 4. "Marabou" wrap constructed of turkey feathers.



Figure 5. Fishing fly labeled as a "Yellow Marabou," with dyed turkey barbs.

The use of the word "marabou" on such items probably led to the species name for marabou stork being entered on CITES paperwork, and thus to a misleading picture of the trade in this species. If all feathers, garments, and skin pieces classified in CITES paperwork as *Leptoptilos crumeniferus* are actually from turkey or chicken, as suspected, this would mean that at least 72% of presumed trade in this species is incorrectly identified (4179 of 5807 export items from 1984-2004).

This interpretation is supported by the fact that over 99% of the supposed trade in *Leptoptilos crumeniferus* feathers, garments, and skin pieces originated in countries outside the range of the marabou stork, including the United States (2800 items), China (830 items), and the Netherlands (400 items). African nations within the range of *Leptoptilos crumeniferus* accounted for only 23% of the listed export trade for the species (1346 of 5807 items in the CITES Trade Database). Almost all of the range-state exports were live birds (1293 of 1346, or 96%).

It remains to be confirmed whether any feathers of actual marabou storks are included in the "marabou" feather trade. The species source of "marabou" feathers can be difficult to determine when the feathers are incorporated into products such as garments (Figure 4) and fishing flies

(Figure 5). In such cases, microscopic examination of feather barbs by a specialist may be required to verify the species involved. This expertise is available at the National Fish and Wildlife Forensics Laboratory. In all cases where such examination has been made, the "marabou" feathers have been verified to originate from either turkey or chicken.

Compared to turkey and chicken feathers, actual marabou stork feathers would be difficult to obtain, and presumably expensive. "Marabou" trim is typically used on inexpensive items in the costume or novelty categories. There does not appear to be any special status attached to "genuine marabou" (i.e., feathers of *Leptoptilos crumeniferus*) in either the garment or fly-tying trades that could translate into higher prices for such items. An internet search on the term "genuine marabou" returned only a few sites, all of which offered what were obviously turkey feathers. In these cases the sellers seemed to be highlighting the fact that their "marabou" feathers were genuine *turkey*, as opposed to chicken.

In summary, there is presently no evidence for international trade in the feathers of marabou storks, *Leptoptilos crumeniferus*.

Conclusions. Importers, exporters, and government officials and inspectors dealing with CITES permits should be aware that "marabou" is a general descriptive term for fluffy feathers used in garments, as decoration, and for fishing flies. When used in this sense, the term does not imply origin from the CITES-listed marabou stork, *Leptoptilos crumeniferus*. Whenever possible, it would be desirable to list such items with their true species source, e.g., "turkey marabou." It should also be remembered that there actually is a small international trade in marabou storks, involving live birds, trophies, and bird parts. It is necessary to distinguish this from the much larger trade in poultry feather "marabou" in order to gain an accurate picture of the impact of trade on the marabou stork, *Leptoptilos crumeniferus*.