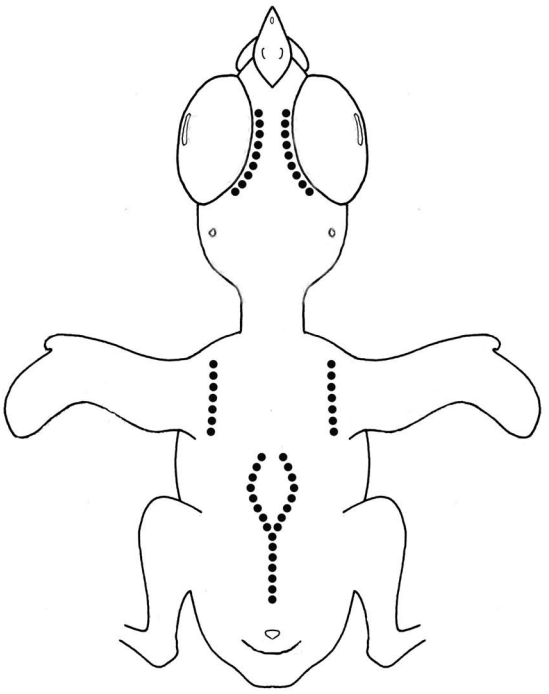

Fig. 1. Scheme of natal pterylosis of the Puaiohi Thrush (Myadestes palmeri).
Рис. 1. Схема эмбрионального пухового птерилозиса гавайского дрозда Пальмера.

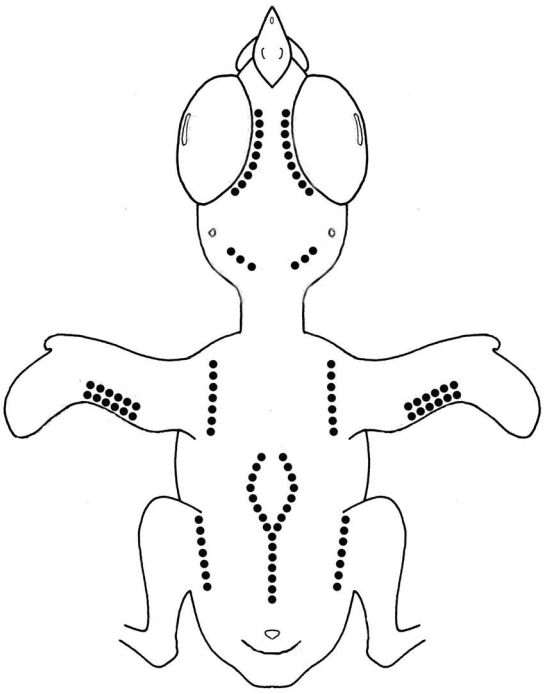

Fig. 2. Scheme of natal pterylosis of the Laysan Finch (Telespyza cantans) and Hawaii Amakihi (Hemignathus virens).
Рис. 2. Схема эмбрионального пухового птерилозиса лайсанской вьюрковой цветочницы и зелёной гавайской древесницы.

Natal pteryloses of endemic Hawaiian Passerine birds
Эмбриональный пуховой птерилозис эндемичных гавайских воробьинообразных

The natal pteryloses of nestlings is one of the most important indicators which show allied connections and evolution process among birds. However, only 10% of down nestlings of Passeriformes of the World were described in detail. Therefore extinct endemic species are the most important. The knowledge of natal pteryloses of endemic Hawaiian Passerine birds is very limited. Practically all data are presented in the book by Andrew J. Berger (1972). He describes:

Omao (*Myadestes obscurus*): two small nestlings with black down and a bright yellow mouth lining.

Elepaio (*Chasiempis sandwichensis*): the skin of the newly hatched nestlings is dull grey-pink; down on the head, back, and wings is smoky; the gape is of a dull cream color; the eyes are closed.

Kauai Oo (*Moho braccatus*): the primary and secondary wing feathers were about 0.38 inch long and were grey; down on the head was grey; down on the ventral feather tracts of the neck, breast, and abdomen was cinnamon. The bill was very wide and had yellow margins.

Hawaii Amakihi (*Hemignathus virens*): at hatching, nestlings have pinkish yellow skin and fine, light grey or dirty white down on the head, back and wings. The gape is rose pink and the corners of the mouth are pale yellow.

Anianiau (*Hemignathus parvus*): the nestlings have a light pink skin with smoky black down on the head, back, and wings. The gape is bright pink with a pale yellow margin at the corners of the mouth.

Palila (*Loxioides bailleui*): the skin of the newly hatched nestling had bright reddish orange color. The lining of the oral cavity was only slightly redder than the general skin color. Long black down feathers in discrete tracts were conspicuous on the top of the head, back, and thighs.

Apapane (*Himatione sanguinea*): the nestlings have flesh-colored to pink skin, with a small amount of grey down on the head, back, and wings. The mouth lining is bright pink, and the margins of the bill are cream-colored.

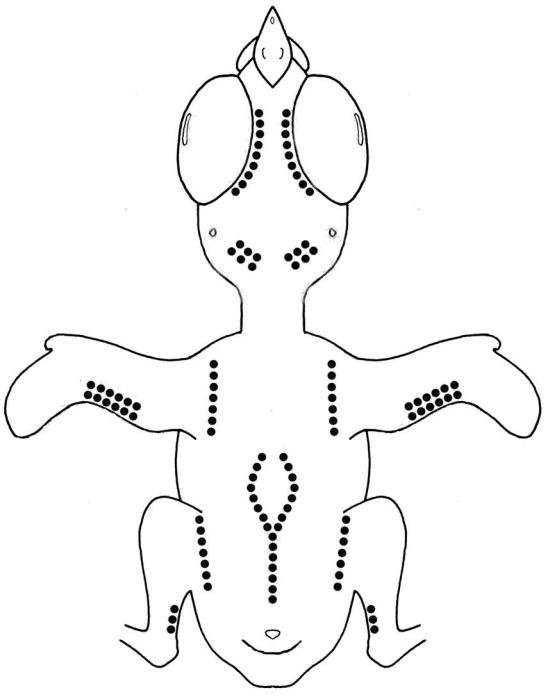

Fig. 3. Scheme of natal pterylosis of the Palila (Loxioides bailleui).
Рис. 3. Схема эмбрионального пухового птерилозиса шафрановой вьюрковой цветочницы.

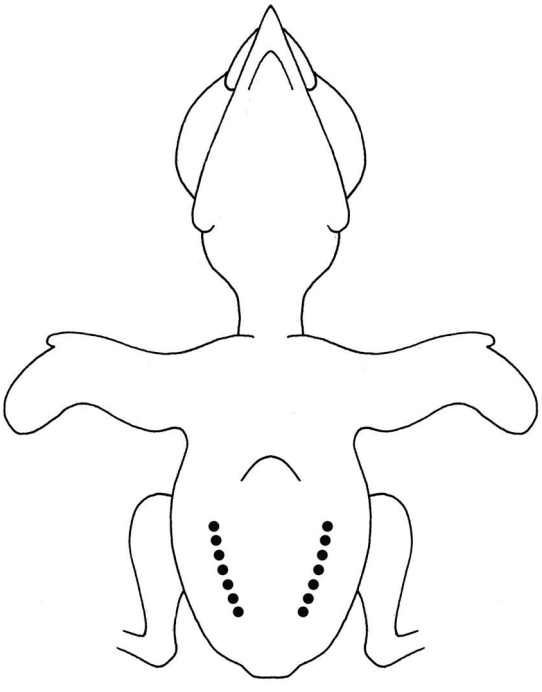

Fig. 4. Scheme of natal pterylosis of the ventral side of the Laysan Finch (Telespyza cantans) and Palila (Loxioides bailleui).
Рис. 4. Схема эмбрионального пухового птерилозиса с вентральной стороны тела лайсанской вьюрковой цветочницы и шафрановой вьюрковой цветочницы.

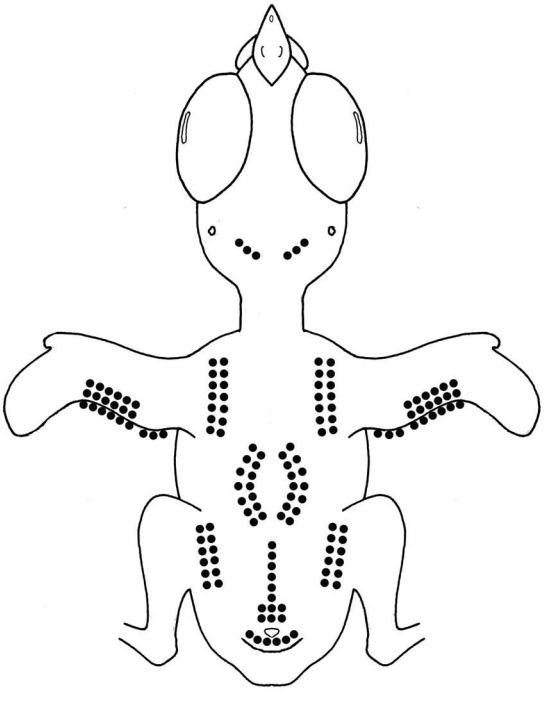

Fig. 5. Scheme of natal pterylosis of the Hawaiian Crow (Corvus hawaiiensis).
Рис. 5. Схема эмбрионального пухового птерилозиса гавайского ворона.

Iiwi (*Vestiaria coccinea*): the nestlings have bright orange-pink skin. The gape is deep rose-pink but with a tinge of orange in the center of the roof of the mouth; the margins of the bill are bright yellow. Both the legs and the bill are orange-pink to yellow-orange. They have well-developed down on the top of the head, above each eye, on the lower back, on each wing, and on each thigh. About 80 percent of the down is dirty white in color; the other 20 percent is dark grey. The dark grey down is most abundant on the head.

Unfortunately A.J. Berger did not use natal pteryloses scheme proposed by D.K. Wetherbee (1957). Therefore his data are not acceptable for systematic purposes.

I investigated ornithological collections of the American Museum of Natural History (New York)**,** National Museum of Natural History, Smithsonian Institution (Washington)**,** Museum fur Naturkunde (Berlin), British Museum of Natural History (Tring), Yamashina Institute for Ornithology (Tokyo), and some others. Only the Bernice P. Bishop Museum (Honolulu, Hawaii) has nestlings of several endemic Hawaiian Passerine species.

Puaiohi Thrush (*Myadestes palmeri*): 10 days old nestling, rows of down are located on the following pteryles: coronal tract (*Pterylae coronalis*) — one per row, scapular (*Pt. humeralis*) — one per row, dorsal (*Pt. dorsalis*) — two per rows, pelvic (*Pt. pelvica*) — one row (fig. 1). Lack of down on the occipital tract (*Pt. occipitalis*) of this Trush species is very unusual. Down was probably lost during growth of nestling or as a result of it's storage in the Museum.

Laysan Finch (*Telespyza cantans*): one day and one week old nestlings have a row of grey down 10 mm long located on the following pteryles: coronal — one per row, occipital — one row, scapular — one per row, femoral (*Pt. femoralis*) — one per row, dorsal — two rows, pelvic — one row, great secondary covert (*Tectrices secundariae majores dorsales*), middle secondary covert (*T. s. medianae d.*), abdominal (*Pt. abdominalis*) — one per row (fig. 2, 4).

Palila (*Loxioides bailleui*): two two weeks old nestlings, rows of light-brown 10 mm long down are located on the following pteryles: coronal — one per row, occipital — two rows, scapular — one per row, femoral — one per row, shin (Pt. cruralis) — one per row, pelvic — one row, great secondary covert, middle secondary covert, abdominal — one per row (fig. 3, 4).

Hawaii Amakihi (*Hemignathus virens*): an embryo and three weeks old nestlings, rows of light-gray 10 mm long down located on the following pteryles: coronal — one per row, occipital — one row, scapular — one per row, femoral — one per row, dorsal — two rows, pelvic — one row, great secondary covert, middle secondary covert (fig. 2). There is no down in abdominal tracts, which was probably lost during storage in the Museum.

Hawaiian Crow (*Corvus hawaiiensis*): one week old nestling, rows of short grey down located on the following pteryles: occipital — two rows, scapular — two per rows, femoral — two per rows, dorsal — four rows, pelvic — one row, lower pelvic (*Pt. dorsalis caudae*) — three rows, upper covert rectrix (*Tectrices rectrices dorsales*), secondary (*Remiges secundarii*), tertiary (*Remiges tertiarii*), great secondary covert, middle secondary covert. Rectrix (*Rectrices*) have a shot setae (fig. 5). Down on only the occipital track of the head is unique for Crows.

Biologists who study wild on Hawaii Islands and birds in breeding centers should pay special attention and provide scientific description of native species of 1–3 days old nestlings. It might be our last chance to get such kind of data on these endangered species.

Author is pleased to acknowledge Dr. J. Tichotsky for organization of Hawaii Islands trip and Dr. C.H. Kishinami for her help in the Bernice P. Bishop Museum.

References

Berger A.J. 1972. Hawaiian Birdlife. Honolulu, 270 p.

Wetherbee D.K. 1957. Natal plumages and downy pteryloses of Passerine birds of North America. — Bull. Amer. Mus. Nat. Hist. 113 (5): 339–436.

V.Yu. Ilyashenko

A.N. Severtsov Institute of Ecology and Evolution of the Russian Academy of Sciences, Leninsky Prosp., 33, Moscow, 117071, Russia; e-mail: valpero53@gmail.com

В.Ю. Ильяшенко

Ин-т проблем экологии и эволюции им. А.Н. Северцова РАН, Ленинский просп., 33, Москва, 117071, Россия; e-mail: valpero53@gmail.com

Краткие комментарии к сборнику «Археологии Романова двора», Москва, 2009
Short comments to the issue "Archaeology of the Romanov Dvor", Moscow, 2009

В недавно вышедшем из печати сборнике «Археология Романова двора» в главе 1 части четвёртой «Археозоологическая коллекция из раскопок на Романовом дворе» на стр. 173–174 приведены сводные данные по результатам моего определения видовой принадлежности костных остатков птиц, найденных при раскопках на Романовом дворе, проводившихся в 1996–1998 и в 2002 гг. (таблица 37). Краткий сопроводительный текст к этим данным и их интерпретации (стр. 164–165), однако, написан не мной, и ряд пунктов этого текста требуют комментариев.