

## *Papilloma squamocellulare* in chaffinch (*Fringilla coelebs*)

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**ABSTRACT:** In October 2000 there were netted and ringed passerines near Zliv in Ceske Budejovice area, Czech Republic. One female of chaffinch (*Fringilla coelebs*) with expressive pathological modifications on foot was caught. Histology investigation proved papilloma squamocellulare.

**Keywords:** chaffinch (*Fringilla coelebs*); histology investigation; papilloma squamocellulare

The occurrence of various types of tumor diseases in wild birds is not usually registered during systematic research. There is not many information in the branch of avian pathology till now. Precise specification of various types of tumors was described in human and in laboratory animals (Benirschke *et al.*, 1978; Bednar *et al.*, 1987). In wild bird species the description of tumors is very rare. Coles (1997) described the occurrence of benign papillomas on legs and feet of finches (*Fringillidae*), caused by papilloma viruses (*Papovaviridae*). Differential diagnosis is e. g. avian pox (Coles, 1997), which was recently observed in other Passerines (blackcap, *Sylvia communis*, *Sylviidae*) in South Bohemia (Rajchard and Rachac, 2001). Therefore it is very important to register and analyze every finding of pathology case in birds of various species within ornithological research.

### MATERIAL AND METHODS

In October 29th, 2000 the fauna research focused on occurrence and population density of passerines (*Passeriformes*) was carried out near Zliv in Ceske Budejovice area, Czech Republic. All caught birds were also ringed. For netting, mesh nets of 15 mm were used. Nets were located beside shrubs of various species near University of South Bohemia,

Biological Station. Besides other birds one adult female of chaffinch with expressive pathological changes on right foot was caught. This bird was submitted to pathology investigation and pathological tissue histology investigation.

### RESULTS AND DISCUSSION

The chaffinch female was clinically without modifications and was in favourable condition. On the right foot, located in the middle and external finger and sole area were found irregular prominent noduli of prickly appearance. Lesions of light grey color were 3–4 mm diameter in average, sporadically were merged together. The lesions were swollen, skin scales standing apart covered by hypertrophic keratin layer. Small ulceration covered of black scab with red tinge can be sporadically noticed.

The other parts of foot and the whole left foot were without macroscopic modifications. No other pathological findings were proven in body surface. Also dissection did not prove any pathological modifications. Parasitology investigation of foot was without positive finding, it did not prove the presence of sarcoptids.

Massive hyperplasia and hypertrophy of cells with massive keratinisation formed on the surface layers of keratin which were found in epidermis.

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Figure 1. Histological slide of papilloma squamocellulare described in paper. Photo: F. Jelínek

The other findings appeared sporadically in epidermis as a concentric keratin pearls. Intercellular bridges were evident in layers of hypertrophic epidermal cells. The presence of keratin pearls and intercellular bridges reminded also keratoa-

canthomas rather than squamous cell carcinomas (Frederickson and Helmboldt, 1991). On contrary to squamous cell carcinomas, the absence of atypical cells and mitosis was found. Evident presence of the cytoplasmic and intranuclear inclusions, as well as vacuolar dystrophy, were not proved in epidermal cells (these should support viroous origin of the disease). Hyperaemia and sporadically also lymphoid tissue infiltrations were present in subcutaneum. The presence of bacterias and moulds in lesions was not proved by Grocott histological examination.

This finding has been specified as papilloma squamocellulare.

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