

Research Note

Monitoring Results of Radiocaesium Contamination in Great Cormorants (*Phalacrocorax carbo*) in Fukushima Prefecture

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● **Summary** ● We monitored the Cesium-137 (¹³⁷Cs) concentration in Great cormorants (*Phalacrocorax carbo*) after the Fukushima Daiichi Nuclear Power Plant (FDNPP) accident to examine whether ¹³⁷Cs concentration in cormorants is differed between ¹³⁷Cs contamination levels in the local environment. In addition, ¹³⁷Cs concentration in cormorants was compared with other avian species. We measured ¹³⁷Cs concentrations in 42 muscle and 15 stomach samples of Great cormorants were collected in Fukushima Prefecture. There were no significant differences of ¹³⁷Cs concentration in cormorant muscle between the three regions (Aizu, Nakadori, and Hamadori) in Fukushima prefecture. This may be due to differences in food habits of Great cormorants and the variation of ¹³⁷Cs contamination level in fish species as main food between the three regions. Positive correlation was observed between the ¹³⁷Cs concentration in cormorant muscle and stomach contents, however it was not significant. The ¹³⁷Cs concentration in Great cormorant muscle was not significantly different than that of Copper pheasant (*Syrnaticus soemmerringii*) and ducks (*Anas zonorhyncha*, *A. platyrhynchos*, and *A. crecca*), but differed significantly from Green pheasant (*Phasianus versicolor*). Our results suggest that the ¹³⁷Cs contamination in green pheasants inhabiting mountainous areas near human habitation (i.e., Satoyama region) is lower than the species lived in freshwater and forest systems, possibly due to decontamination actions taking place in that region. Furthermore, these findings indicate that the ¹³⁷Cs contamination levels detected within each species are affected by the ¹³⁷Cs contamination levels present in their environment.

Key Words: great cormorants, Fukushima Dai-ichi Nuclear Power Plant accident, freshwater ecology, radiocaesium, monitoring

Received April 3, 2022; Accepted August 4, 2022

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