

SHORT COMMUNICATIONS

GROWTH AND PLUMAGE DEVELOPMENT OF NESTLING LONG-EARED OWLS

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Abstract. We report the growth rates and plumage development of Long-eared Owls (*Asio otus*) in two developmental stages from hatching to fledging, the nestling period (1–22 days) and pre-fledging period (23–37 days). We used the logistic growth equation to model nestling mass gain. Mass gain was most rapid during the nestling period. Average mass gain per day was highest between seven and 13 days of age. At 16 days of age nestlings displayed defined facial disks and complete second down. Nestlings left the nest at 22 days of age. Mass gain slowed considerably after nest departure and continued to slow up to fledging. Appearance of defensive and concealment behaviors occurred nearly simultaneously with departure from the nest. To our knowledge this is the first detailed report of nestling growth rates and plumage development for Long-eared Owls in North America.

Key words. *Asio otus, concealment, down development, growth rate, logistic growth function, postnatal growth, pre-fledging period.*