



Short-eared Owl (*Asio flammeus*) in the Yucatan Peninsula: the importance of specimens in museum collections

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Abstract

McAndrews *et al.* (2006) described the "first fully documented record" of the Short-eared Owl (*Asio flammeus*) for the Mexican state of Yucatan. The apparent absence of the specimen collected by Phillips and Dickerman did not allow considering the previous presence of the species in the state of Campeche, however, when we reviewed the collection of the Museo de las Aves de México we found it. This specimen exemplifies the importance of having voucher specimens in scientific collections.

Keywords: Campeche, Short-eared Owl, *Asio flammeus*, voucher specimens.

Resumen

***Asio flammeus* en la Península de Yucatán: la importancia de los especímenes en las colecciones de museo**

McAndrews *et al.* (2006) describieron el "primer registro documentado" del búho cuerno corto (*Asio flammeus*) para el estado de Yucatán. Debido a la aparente falta de un ejemplar voucher colectado por Phillips y Dickerman, no se había considerado su presencia en el estado de Campeche; sin embargo, al revisarse la colección del Museo de las Aves de México, dicho ejemplar apareció. Con ello se resalta la importancia de contar con ejemplares voucher en las colecciones científicas.

Palabras clave: Campeche, búho cuerno corto, *Asio flammeus*, ejemplares voucher.

Résumé

Hibou des marais (*Asio flammeus*) dans la Péninsule de Yucatan: l'importance des specimens dans des collections de musée

McAndrews *et al.* 2006 ont décrit le « premier registre » du Hibou des marais (*Asio flammeus*) pour l'état de Yucatan. L'apparent absence du spécimen voucher collecte par Phillips et Dickerman ne permit pas assure sa présence dans l'état du Campeche. Nous révisons la collection scientifique du Museo de las Aves de México et nous rencontrons ce spécimen. Dans cette note nous présentons l'importance d'avoir voucher specimens dans les collections scientifique.

Mots clés: Campeche, Hibou des marais, *Asio flammeus*, voucher specimens.

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A biological voucher specimen is one which serves to physically and permanently document data in an archival report by verifying the identity of the organism(s) used in the study and by so doing, assuring the repeatability of the study which otherwise could not be repeated and/or accurately reviewed or reassessed. Thus, voucher specimens are the best means to verify the data documented in a report and to make historical comparison possible (Stiles 1983; Yates 1985).

McAndrews *et al.* (2006) reported the "first fully documented" record of Short-eared Owl (*Asio flammeus*) for the state of Yucatan by a picture taken at Las Coloradas. Although the authors stated that previously A. R. Phillips reported the existence of a voucher specimen from Campeche, the absence of such specimen led MacKinnon (1992) to consider its presence hypothetical for the region (McAndrews *et al.* 2006). However, during a review of the scientific collection of the Museo de las Aves

de México (MAM) in Saltillo, Coahuila in January 2007, we were able to locate the Short-eared Owl specimen (MAM 6970, sex unknown) that A.R. Phillips and R.W. Dickerman found dead on November 16, 1963 in "La Veleta, 4 ½ miles, E of San Pedro, SW most Campeche, México". Unfortunately, the partial remains of the voucher (two wings only) do not allow the assignation to the subspecies level besides the nomenclature of the Antillean populations is confuse and poorly documented (Hoffman *et al.* 1999).

Wiggins *et al.* (2006) mention that Antillean and Holarctic Short-eared Owl could be distinguished with differences in the size of the wing. According to Hoffman *et al.* (1999) the wing length in Antillean Short-eared Owls (subspecies *portoricensis* and *dominguensis* according to Dickinson 2003) differs from nominate *flammeus* in having shorter wing (<300 mm). Based on the measures of the wing chord from the left wing of the MAM specimen (286



mm) it could be suggested that it probably belongs to the Antillean populations. The species status, its migratory patterns and its population trends are difficult to monitor and remains poorly understood, due to the fact that the Holarctic Short-eared Owls are highly nomadic, as they track irruptions of small mammals over the landscape (Schmelzer 2005). The Antillean populations have been recorded recently in Florida and major islands (like Cuba) since 1970 due to its great dispersion capabilities (Hoffmann *et al.* 1999; McAndrews *et al.* 2006). This finding supported the hypothesis of recent colonization from the Antillean Short-eared Owl populations into the Yucatán Peninsula (McAndrews *et al.* 2006), although deeper taxonomic analyses are still to be performed. Beyond the taxonomic and biogeographic implications of this specimen, it is of particular interest that it has been only added one additional record of Short-eared Owl (McAndrews *et al.* 2006) since Phillips and Dickermann collected it in Campeche on 1963. However, the lack of records not always means the absence of the species nor either the historical existence of such could assure its current presence (Rojas-Soto and Oliveras de Ita 2005). This material and the attached information are priceless and become even more valuable since many species are endangered by the rapid deforestation all over the world (Navarro *et al.* 2003; Oniki 2002).

We consider this as a good example of the enormous value that a collected organism (voucher) can contribute, against the idea to only document the presence of an organism by means of its feathers, blood samples, photographs, or in some cases, the measures of captured specimens. Thus, the value of a specimen goes further than

the simple proper identification of a species, which can not be based only on a few feathers taken from the body of a bird, as well as in photographs, since they do not offer more information on the behavior that many phenotypic characters express in answer to the age of the organism, the environment and the geographic and seasonal variation, among others (Stiles 1983; Rojas-Soto *et al.* 2002). In fact, the results of distributional studies, in order to be valid, must be made on the basis of accurate identifications of the material supported by voucher specimens. Besides, many species and subspecies are difficult enough to determinate even with actual specimens in hand; especially this is true as regards the ultimate taxonomic unit (Van Tyne 1956).

The scientific collections also constitute the base of our understanding of Neotropical ornithology, which is based upon specimens, unfortunately this resource is not growing in accord with our interest in this region, as it should be (Winker 1996; Vuilleumier 1998; Rojas-Soto and Oliveras de Ita 2005), remembering that the taxonomic purpose of ornithologist in preserving specimens is not merely "species-identification" but population identification, to the best of our abilities at any time (Phillips 1973).

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