



Complementary redescription of *Raja lintea* Fries, 1839 (Elasmobranchii, Rajidae) and its revised generic assignment

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Abstract

The generic status of many skate species has been revised during the past six decades by various authors having introduced new diagnostic morphological and anatomical characters. As a consequence, the original family Rajidae and its very diverse type genus *Raja* Linnaeus, 1758 have been split into several families, subfamilies, genera and subgenera which were in several cases provisionally established due to the lack of specific material required. However, quite a number of species originally in *Raja* remained incompletely studied and still assigned to *Raja sensu lato*, because, e.g., mature males were not yet available for studies of their relevant clasper features. One of these species is the northern North Atlantic *Raja lintea* Fries, 1839 which Stehmann (1970, 1973) and Stehmann and Bürkel (1984) could not assign definitively to the updated diagnosis of any revised rajid genus, because a mature male was not available. McEachran and Miyake (1990) and McEachran and Dunn (1998) reallocated *Raja lintea* to the subgenus/genus *Dipturus* Rafinesque, 1810, respectively, without evidence or explanation given.

Since a mature male of *R. lintea* became available, the author has reinvestigated the species, presents here its so far unknown diagnostic characters of clasper morphology and skeleton, scapulocoracoid and pelvis, and assigns the species on this basis to the genus *Rajella* Stehmann, 1970.

Key words: Skates, North Atlantic, generic status, clasper features, *Rajella*

Introduction

Since its original description, the amphi-northern North Atlantic skate species *Raja lintea* Fries, 1839 has been mentioned, redescribed and illustrated by several authors to varying degree of details, including its egg capsules (e.g., Müller and Henle, 1841; Lütken, 1898 as *Raja ingolfiana*; Jensen, 1914, 1948; Clark, 1926, 1930; Ehrenbaum, 1927; Bigelow and Schroeder, 1953; Templeman, 1965; Stehmann, 1970; Stehmann and Bürkel, 1984). Because a mature male was not available to provide the most relevant clasper characters for an updated generic assignment, Stehmann (1970, 1973) and Stehmann and Bürkel (1984) had to keep this species as *incertae sedis* under the general genus *Raja* Linnaeus, 1758.

McEachran and Miyake (1990) listed *R. lintea* in their Figure 11 and in the Appendix (classification of nominal species of skates) under the subgenus *Raja* (*Dipturus*), without providing any arguments or evidence for this subgeneric assignment. McEachran and Dunn (1998) had not listed *R. lintea* in their Appendix 1 (specimens examined), neither in Appendix 3 (character matrix), but they listed the species in Appendix 4 (sequenced classification of Rajidae and generic classification of species) as *Dipturus linteus* (Fries, 1838), again without presenting any evidence or explanation for this alteration. Many authors have since followed by copying this alteration uncritically.

Such procedure of changing the assignment of species to other families, subfamilies, genera and subgenera just by presenting new combinations without any explanation must be interpreted very critically, as it may eventually discredit taxonomy and trusty nomenclature. Other authors have unfortunately followed this unscientific attitude in lists of taxa in appendices to books, etc., thus causing confusion not only for the non-taxonomist user of scientific nomenclature.

Published scientific descriptions and illustrations of *R. lintea* as cited above clearly show that this species is