



Die Pflanzenthiere in Abbildungen nach der Natur and its *Fortsetzungen* by Eugenius Johann Christoph Esper: Overlooked Sources for its Dates of Publication and Location of Type Material

Sung-Yin Yang¹, James Davis Reimer² & Martyn E.Y. Low^{3*}

¹*Molecular Invertebrate Systematics and Ecology (MISE), Department of Marine and Environmental Sciences, Graduate School of Engineering and Science, University of the Ryukyus, 1 Senbaru, Nishihara, Okinawa 903-0213, Japan. Email: likefh@gmail.com (Current address: Microbiology and Biochemistry of Secondary Metabolites Unit, Okinawa Institute of Science and Technology Graduate University (OIST), 1919-1 Tancha, Onna-son, Kunigami-gun, Okinawa, 904-0495, Japan.)*

²*Molecular Invertebrate Systematics and Ecology (MISE), Department of Marine and Environmental Sciences, Graduate School of Engineering and Science, University of the Ryukyus, 1 Senbaru, Nishihara, Okinawa 903-0213, Japan. Email: jreimer@sci.u-ryukyu.ac.jp*

³*Department of Marine and Environmental Sciences, Graduate School of Engineering and Science, University of the Ryukyus, 1 Senbaru, Nishihara, Okinawa 903-0213, Japan. Email: m.low@me.com (Current address: Lee Kong Chian Natural History Museum, (formerly the Raffles Museum of Biodiversity Research), Faculty of Science, National University of Singapore, Block S6, Science Drive 2, #03-01, Singapore 117546, Republic of Singapore*
*Corresponding author

Abstract

Esper's work entitled *Die Pflanzenthiere in Abbildungen nach der Natur* and its *Fortsetzungen* (or continuation) was published in parts over a period of over four decades. Herein, previously overlooked (at least by the majority of zoologist) collations providing accurate dates of publications for Esper's work are discussed. We also summarise the information that is known of the type material that formed the basis of this work.

Introduction

Eugenius (or Eugen) Johann Christoph Esper (b. 2 June 1742, d. 27 July 1810; Fig. 1) was a German naturalist known for his work on Lepidoptera (Heller 1959: 655). Esper also described over 200 new species of ascidians, bryozoans, cnidarians, and marine algae in his iconic *Die Pflanzenthiere in Abbildungen nach der Natur* (hereafter *PZ*, Esper 1788–1830), and its *Fortsetzungen* [= *Continuation*] (hereafter *FZ*, Esper 1794–1806) (Ott 1989, 1995). Many of Esper's names are still considered valid today (see Grasshoff 1991; Scheer 1991).

The accurate determination of the dates of publication of a work in which new names are made available is a fundamental part of zoological nomenclature and taxonomy. We find that historical circumstances have



Fig. 1. A photographic reproduction of an oil portrait of Eugenius Johann Christoph Esper (source: DocTaxon, Wikimedia Commons: http://commons.wikimedia.org/wiki/File:EJC_Esper_1742-1810.jpg).

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conspired to make the dates of publication of Esper's *PZ* and its *FZ* extremely complicated to determine. In two overlooked publications (i.e. Ott 1989; Grasshoff &

Scheer 1991), the dates of publication have been ascertained. Although some botanists working on marine algae (e.g. Woelkerling & Irvine 2007) are aware of these publications, most zoologists appear to be unaware of their existence.

Esper's type material

The type material on which the names in Esper's *PZ* and *FZ* were based was originally deposited in what is now the Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany (see Sherborn 1940; Grasshoff & Scheer 1991; Scheer 1991). Some of the material now resides in the Forschungsinstitut und Naturmuseum Senckenberg (SMF), Germany (see Grasshoff & Scheer 1991; Scheer 1991). The type catalogues of the Octocorallia and Antipatharia (Grasshoff 1991), and Scleractinia (Scheer 1991) are of particular utility for working with Esper's cnidarian material.

Previous collations on the dates of publication of the *PZ* and *FZ*

Esper's *PZ* and *FZ* were published and issued over the course of more than four decades. The *PZ* (1788–1830) was comprised of three *Theilen* [= Sections], divided into 17 *Lieferungen* [= Installments = Issues] (hereafter *PZ L1–L17*). The *FZ* (1794–1806) was made up of two *Theilen*, divided into 10 *Lieferungen* (hereafter *FZ L1–L10*). Sherborn (1902: xxii, 1922: 1) published a collation of the text of the *PZ* and *FZ*, but the plates were not dated independently, on the assumption that they were issued simultaneously with their accompanying text.

Ott (1989) demonstrated that each *Lieferung* was issued individually upon completion, with the text of each *Lieferung* not necessarily corresponding to the accompanying plates, and vice versa. The dates provided by Ott (1989) are based on an exhaustive (and successful) search by the author for the individual wrappers of each *Lieferung* (with the exact text on each wrapper reproduced in full therein). Much of the confusion that has arisen is due to many libraries discarding these wrappers and rearranging the text and plates to match before they were bound (Ott 1989: 206).

Apparently unaware of Ott's (1989) publication, Grasshoff & Scheer (1991) also published a collation of the dates of the *PZ* and *FZ*, using the German *Göttingische Anzeigen von gelehrten Sachen* (for 1789–1797), and copies of the *PZ* and *FZ* available to them. The *PZ/FZ* publication dates in Grasshoff & Scheer's (1991) paper are thus not well resolved—the dates of several *Lieferungen* not being individually ascertained.

Ott (1995) was likewise unaware of Grasshoff's and Scheer's publications (i.e. Grasshoff 1991; Grasshoff & Scheer 1991; Scheer 1991) when he published a detailed index of the taxa described in each *PZ/FZ Lieferung* with the dates when each of the new names was made

available (the dates are based on, and identical to, Ott 1989). The collations of Ott (1995), and Grasshoff & Scheer (1991) are in general agreement, but should ambiguity arise, the former should be given preference.

Importance of dating the *PZ* and *FZ*: the Cnidaria as an example

The zoantharian *Palythoa tuberculosa* exemplifies the complexity of determining the date of availability of the names in Esper's *PZ/FZ*. The specific name *tuberculosum*, in the binomen *Alcyonium tuberculosum*, was first used in 1791 (*PZ L7*: 10), but only as a *nomen nudum*. Some authors have taken 1791 to be the date of publication of this specific name (e.g. Polak *et al.* 2011), but it was not made available until 1805 (*PZ L13*: *Alcyonium* pl. 23, caption). Similarly, the name of the scleractinian coral *Stylophora pistillata* is variously cited as having been published in 1792 (e.g. Ebeid *et al.* 2009) or 1797 (e.g. Polak *et al.* 2011). This disparity can be explained by the plate (*PZ L9*: *Madrepora* pl. 60, caption; published 1792) appearing before the text (*FZ L3*: 73–74), which was bound in the first *Theil* of the *FZ* with the title-page stating “1797”.

We hope that this communication will bring the overlooked publications by Ott (1989, 1995) and Grasshoff & Scheer (1991) and to the attention of the wider zoological research community.

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