

Interpreting dates in ornithology

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ABSTRACT

MLÍKOVSKÝ, J. 2010. Interpreting dates in ornithology. *J. Afrotrop. Zool. Special Issue*: 61-64. Julian and Gregorian calendars were widely used in science. Dates written in these calendars are rather similar to each other, which may cause confusion. Relationships between and occurrences of these calendars are described and pitfalls in their use in ornithology are discussed. A brief introduction to the French Republican Calendar, which also was used in ornithology, is provided.

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Keywords: Julian calendar, Gregorian calendar, French calendar, recalculations, use in ornithology

INTRODUCTION

Collection or observation dates are a significant part of the data set necessary for describing the occurrence of a specimen or an individual. Dates are specified using calendars, which are usually comprised of years, months and days. A variety of calendars have been in use (Parise 1982, Richards 1998, Reingold & Dershowitz 2007), of which only the so-called Julian (Old Style, OS) and Gregorian (New Style, NS) calendars were regularly used in science, including ornithology. Julian and Gregorian dates are similar to each other (NS being 11-13 days ahead of OS in countries of interest (Table 1)) and cannot be discerned without additional information, which makes their interpretation difficult.

In this paper I summarize the occurrence of Julian and Gregorian calendars, describe their relationships, and discuss pitfalls in their use in ornithology. I add information on the French Republican Calendar, which was used in modern ornithology in 1793-1806, although it was sufficiently different from both Julian and Gregorian calendars to cause confusion (Renouard 1822, Anonymous 2009f). For differences in writing dates, whether Julian or Gregorian, see Rasmussen & Prÿs-Jones (2003: 80).

CALENDARS

The so-called Julian calendar was introduced as an official calendar for Christian countries by Gaius Julius Caesar (100-44 BC) in 46 BC. Although based on the movement of the sun and thus more practical than lunar calendars, it was not free of errors, so that for centuries there was an increasing deviation of the dates in comparison with the annual natural phenomena. A correction was developed by Aloysius Lilius (c. 1510-1576) and the corrected calendar was introduced by Pope Gregory XIII (1502-1585) in 1582.

Various historical reasons, the internal evolution of the Christian Church and the continuing process of secularization meant that individual countries adopted the Gregorian calendar at different times. In effect, Catholic countries adopted the Gregorian calendar within a few years after its introduction (prior to 1600), while other countries shifted to the Gregorian calendar with some delay. In particular, the last Protestant countries adopted the Gregorian calendar in the 1750s, and Orthodox countries shifted to the Gregorian calendar in 1913-1924.

Non-Christian countries traditionally used various lunar or semi-lunar calendars, which were not used

Table 1. Relationships between Julian (OS) and Gregorian (NS) calendars.

Period (Julian calendar)	Period (Gregorian calendar)	Recalculation
1582 (5 Oct) – 1700 (18 Feb)	1582 (15 Oct) – 1700 (28 Feb)	NS = OS + 10 days
1700 (1 Mar) – 1800 (17 Feb)	1700 (12 Mar) – 1800 (28 Feb)	NS = OS + 11 days
1800 (1 Mar) – 1900 (16 Feb)	1800 (13 Mar) – 1900 (28 Feb)	NS = OS + 12 days
1900 (1 Mar) – 2100 (15 Feb)	1900 (14 Mar) – 2100 (28 Feb)	NS = OS + 13 days