

PROPOSAL OF CRISTISPIRA PECTINIS GROSS 1910, 44
AS THE TYPE SPECIES OF THE GENUS CRISTISPIRA

Daisy A. Kuhn

Department of Biology, San Fernando Valley State College,
Northridge, California 91324 USA

ABSTRACT. A request is submitted to the Judicial Commission of the International Committee on Nomenclature of Bacteria to validate the proposal that the bacterial species Cristispira pectinis Gross 1910, 44 be recognized as type species of the genus Cristispira.

Certes (1882) published the first account of a spirochete from the digestive tract of oysters. Because of its morphology and size, Certes (1882, 351) regarded it as a protozoan and named it Trypanosoma balbianii. Later, similar inhabitants of mollusks were regarded as spirochetes; Trypanosoma balbianii became Spirochaeta balbianii (Certes) Swellengrebel 1907, 562, and several new molluscan species of Spirochaeta were named (cf. Buchanan, Holt and Lessel 1966).

Gross (1910, 44) proposed placing the "Muschelspirochäten" in a new genus. He validly published the generic name Cristispira by naming and describing two species, C. pectinis Gross 1910, 44, and C. interrogat-ionis Gross 1910, 54. He did not designate one of these as the type species (generic nominifer [Starr and Heise 1969], nomenclatural type). Rule 9c(3)b of the International Code of Nomenclature of Bacteria (1966) reads:

"If the genus, when originally published, included more than one species, the type species selected shall be one of these."

In Winslow et al. (1917) the type species of the genus Cristispira is listed as Cristispira balbianii Certes. The objections to this selection are as follows: since Gross (1910) had given the name Cristispira to only those spirochetes living in the digestive tract of certain mollusks, the generic name Cristispira is not an avowed substitute for the name Spirochaeta, by which the molluscan spirochetes had been known prior to Gross' publication (1910) (Rule 9c(3)d). Furthermore, Gross (1910) mentioned only incidentally the binary combination Cristispira balbianii after he had named and described C. pectinis, without specifically stating that he was proposing a new binary combination (Rule 12c(3)). Gross (1910) probably intended that all previously named species of "Muschelspirochäten" henceforth be referred to by the generic name Cristispira. Thus, C. balbianii (Certes) Gross 1910, 48, is not the nomenclatural type of the genus Cristispira.

Buchanan (1918, 544; 1925, 284) erroneously lists the type species of the genus Cristispira as C. veneris Gross. Buchanan (1925) wrote that C. veneris and C. interrogat-ionis had been described by Gross (1910), when in fact it had been C. pectinis and C. interrogat-ionis. C. veneris was described and named as a new species of Cristispira by Dobell (1911,

508). It is clear that Buchanan (1918;1925) had intended to select the first of the two species described by Gross (1910), but as a result of an inexplicable lapsus calami the name C. pectinis was replaced by C. veneris, which then became incorrectly attributed to Gross.

It is proposed here that C. pectinis Gross 1910, 44 be recognized as the type species of the genus Cristispira for the following reasons: C. pectinis had been named and described first, and its morphology resembles that of the majority of other described species of "Muschelspirochäten." C. interrogationis can not be selected as the type species, because it may be considered a species inquirenda. It is significantly smaller in size than C. pectinis and possesses hooked ends; moreover, other small molluscan spirochetes have recently been shown by electron microscopy to possess the anatomy of treponemes (Pillot and Ryter 1965).

Hence, in accordance with the International Code of Nomenclature of Bacteria (1966) the type species of the genus Cristispira is correctly and permanently associated with C. pectinis Gross 1910, 44, and it is requested that the Judicial Commission of the International Committee on Nomenclature of Bacteria designate Cristispira pectinis Gross 1910, 44 as the type species of the genus Cristispira.

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