Taxonomic and Nomenclatural Changes in the Ocotea indecora Group (Lauraceae)

NOVON, v.20, n.4, p.377-380, 2010
http://producao.usp.br/handle/BDPI/15739

Downloaded from: Biblioteca Digital da Produção Intelectual - BDPI, Universidade de São Paulo
Taxonomic and Nomenclatural Changes in the *Ocotea indecora* Group (Lauraceae)

Author(s) : Leandro C. S. Assis and Renato de Mello-Silva
Published By: Missouri Botanical Garden
DOI:
Taxonomic and Nomenclatural Changes in the *Ocotea indecora* Group (Lauraceae)

Leandro C. S. Assis and Renato de Mello-Silva

Universidade de São Paulo, Departamento de Botânica, Laboratório de Sistemática Vegetal, Rua do Matão 277, 05508-090, São Paulo, Brazil. leandassiss@gmail.com

**Abstract.** Following a recent revision of the *Ocotea indecora* (Schott) Meisn. ex Mez group (Lauraceae), some taxonomic and nomenclatural changes have been made. We present here the resulting synonyms, together with typifications, and one new combination. Seven new synonyms are proposed. The following seven names are lectotypified: *Mespilodaphne indecora* (Schott) Meisn. var. *cannella* Meisn., *M. indecora* var. *intermedia* Meisn., *M. indecora* var. *stricta* Meisn., *O. complicata* (Meisn.) Mez, *O. elegans* Mez, and *O. fasciculata* (Nees) Mez. *Mespilodaphne leucophloea* Nees & Mart. is transferred as *O. leucophloea* (Nees & Mart.) L. C. S. Assis & Mello-Silva.

Ocotea Aubl. is the largest genus of New World Lauraceae and comprises 300 to 350 Neotropical species plus 50 to 60 African species (Rohwer, 1993; Madriňañ, 2004). It is highly diversified in lowland and montane forests from Mesoamerica to eastern Brazil (e.g., Rohwer, 1986; Oliveira-Filho & Fontes, 2000; Vicentini & van der Werff, 2000; van der Werff, 2002; Baitello & Marcovino, 2004; Madriňañ, 2004; Assis et al., 2005; Quinet, 2005, 2006). The modern circumscription of *Ocotea* started with Mez (1889), who treated it in a much broader circumscription than that of Nees von Esenbeck (1833, 1836) or Meisner (1864, 1866). Almost 100 years later, Rohwer (1986) organized the genus in informal groups and provided a critical framework for future treatments (e.g., Rohwer, 1991; van der Werff, 1999, 2002). Despite the attention given to the circumscription of species, nomenclatural problems in *Ocotea* have been neglected (but see Moraes, 2009). In this article, the taxonomic and nomenclatural changes adopted to solve these problems are presented. Species circumscription here is based on the taxonomic species concept, in which a species is defined by an exclusive character or a combination of characters (Stuessy, 1990; Assis, 2010; Assis & Mello-Silva, 2010a, b).

**TAXONOMIC AND NOMENCLURAL CHANGES IN OCOTEA.**


doi: 10.3417/2009009

“am Ufer des Flusses Rupununi,” May 1843, R. Schomburgk 1286 (lectotype, designated here, K [000352442]; duplicates, B p.p. [2], K [3]).


Nees von Esenbeck (1848) described Oreadodaphne fasciculata based on Schomburgk 1286, but did not assign the holotype. Schomburgk 1286 at B herbarium is a mixed collection, with materials from Ocotea fasciculata and O. schwamburgiana (Nees) Mez. The fuller collections at K herbarium, represented by four sheets, are not mixed for Schomburgk 1286, and the sheet K 000352442 is selected here as the lectotype of O. fasciculata.

Meisner (1864) cited Ayendron firmulum Nees & Mart., excluding its type, Sellow s.n., in the synonymy of Mespilodaphne complicata. This is in accordance with the International Code of Botanical Nomenclature (McNeill et al., 2006: Art. 52.2). There are two syntypes of Mespilodaphne complicata: Riedel 766 at G herbarium, in which the DC. Prodromus collection is housed, and Mattius s.n. at M herbarium; Riedel 766 is here designated as lectotype.

Cinnamomum Schaeff. is characterized by branchlets with continuous growth, usually triplivened leaves, anthers with four to rarely two pollen sacs, and cupules mostly with persistent tepals on the rim at fruit maturity (van der Werff, 1991; Rohwer, 1993). In contrast, the type material of C. bahiense, Monteiro 23489, has branchlets with rhythmic growth (a kind of growth characterized by its periodicity, by cataphylls surrounding the buds, and by the leaves distinctly clustered at the top of the branchlets [Hallé et al., 1978; Assis & Mello-Silva, 2010b] and pinnate leaves, although fruits and cupules have not been seen. Monteiro 23489 fits in our circumscription of Ocotea fasciculata, which has branchlets with rhythmic growth, usually arculate leaves with areoles 0.2–0.7(–1) mm diam., and tepals three to four times longer than the anthers. Accordingly, C. bahiense is here synonymized under O. fasciculata. The same combination of characters is present in the type materials of O. duckei (Ducke s.n.), O. nunesii (Nunes 222), and O. scrobiculifera (Monteiro 23516). Thus, these three binomials are also placed in synonymy of O. fasciculata.


Mespilodaphne indecora (Schott) Meisn. var. cannella Meisn., Prodr. (DC.) 15(1): 103. 1864. TYPE: Brazil. s. loc., s.d., H. W. Schott 4347 (lectotype, designated here, NY [image seen]).


In describing Persea indecora, Schott (1827) did not cite the type material. Nevertheless, the unique known collection of Persea indecora with his handwriting is deposited in B herbarium, and it has been chosen as lectotype (Moraes, 2009).

Mez (1889) merged Mespilodaphne indecora var. cannella with Acrodiclidium guminiflorum Mez, subsequently combined in Phyllostemonodaphne guminiflorum.
flora (Mez) Kosterm. (Kostermans, 1936). Rohwer (1988) considered M. indecora var. cannella a doubtful synonym of P. geminiflora. Ocotea and Phyllostemonodaphne Kosterm. are not easily distinguished in their vegetative states. However, O. indecora has branchlets with rhythmic growth, which contrasts sharply with the continuous growth in Phyllostemonodaphne. The type material of M. indecora var. cannella, Schott 4347, which is sterile, appears to have rhythmic growth, and thus we prefer to treat this variety as a synonym of O. indecora. The only known collection of Schott 4347 (NY) is here selected as lectotype.

Among the probable syntypes of Mespilodaphne indecora var. intermedia (Meisner, 1864), Riedel s.n. (K) is selected here as lectotype because its vegetative and reproductive structures are better representative and conserved. Mespilodaphne indecora var. laxa was based on Riedel 481, but Meisner (1864) did not assign the holotype. Riedel 481 housed at G herbarium is composed of three sheets: two are mixed collections corresponding to Ocotea indecora var. laxa and the third sheet corresponds to Phyllostemonodaphne geminiflora (Mez, 1889; Rohwer, 1988). Rohwer (1988) stated that Riedel 481 at K herbarium is also mixed, containing materials from both O. indecora and P. geminiflora. Although we believe the K collection to consist exclusively of materials from M. indecora var. laxa, we have selected the LE collection as lectotype because there is no confusion in its identity and because the vegetative and reproductive structures are well represented and conserved.

There are two syntypes of Mespilodaphne indecora var. stricta (Meisner, 1864): Riedel 483 at G herbarium, in which the DC. Prodromus collection is housed, and Schott 5610, at M and US herbaria; Riedel 483 is here designated as lectotype. Mez (1889) referred to seven collections when describing Ocotea elegans but did not assign a holotype. These collections include: Saint-Hilaire C.74 (P), Clausen 79 (P), Glazion 12121 (B, C, K, P), Glazion 12133 (B, BR, C, K, P), Weddel 230 (P), Glazion 17192 (B, BR, C, HBG, K, P), and Møsen 3792 (HBG, P, S). Glazion 12133 at P herbarium has three sheets, and the sheet with the label Prêt N° 123 51/70 is selected here as lectotype because its vegetative and reproductive organs are well conserved and representative of the taxon and because it morphologically corresponds to specimens identified as O. elegans in several works (e.g., Oliveira-Filho & Fontes, 2000; Baitello & Marcovino, 2004; Quinet, 2006). Among the remaining syntypes, the following collections were excluded from our circumscription of O. indecora: Glazion 12121 and Saint-Hilaire C.74.

are considered O. colophanthera L. C. S. Assis & Mello-Silva, Møsen 3792 (HBG, P, S [4]) refers to O. catharinensis Mez, and Weddel 230 (P) is excluded to O. fasciculata.

Regarding the synonymies under Ocotea indecora, this is a widespread and highly polymorphic species encompassing all the variations characteristic of the binomial and four varieties synonymized above, which are based mainly on vegetative features such as leaf shape and venation.


In describing Mespilodaphne leucophloea, Nees von Esenbeck (1833) did not cite the number of the type material, Sellow. Three years later, the same author (Nees von Esenbeck, 1836) assigned Sellow 1372, deposited in B herbarium, as the type collection. In this manner he effected the lectotypification, although he did not explicitly state that he was doing so.

Although Bentham and Hooker (1880) considered Mespilodaphne Nees a synonym of Ocotea, it was primarily Mez (1889) who made the combinations from Mespilodaphne to Ocotea. In doing so, he treated Mespilodaphne indecora var. leucophloea as a synonym of O. indecora. We adopt here Mez's (1889) circumscription of Ocotea, but exclude M. leucophloea from the synonymy of O. indecora, thus making a new combination, O. leucophloea. The materials linked to O. leucophloea have yellow to cream young branchlets (vs. brown to gray, rarely cream in O. indecora), conspicuous rhytidome on the young branchlets (vs. absent to inconspicuous rhytidome), a strongly attenuate leaf base (vs. acute to obtuse), and larger leaf areoles (1–2.7 mm diam. vs. 0.3–1–1.5 mm diam.).


We thank Leonardo Borges, PCs. Sellow s.n. and Martius s.n., have similar vegetative and reproductive parts.

Acknowledgments. We thank Leonardo Borges, Pedro Moraes, José Rubens Pirani, Paulo Sano, Matheus Santos, Marcelo Trovó, Henk van der Werff, Victoria Hollowell, and an anonymous reviewer for helpful discussions and/or comments on an earlier version of this manuscript, and the curators and staff of the herbaria visited (B, BR, C, E, G, HBG, K, M, P, RB, S, SPF, and W) for supporting consultation of the collections. This article is part of Leandro Assis’s Ph.D. thesis at Universidade de São Paulo, Brazil, and is supported by the Fundação de Amparo à Pesquisa do Estado da São Paulo (FAPESP; 03/13176-8; 04/14535-4) and in part by the International Association for Plant Taxonomy (IAPT) Research Grants in Plant Systematics 2007 and the Systematics Association. Leandro Assis acknowledges current research funding for Plant Taxonomy (IAPT) Research Grants in Plant Systematics, s. loc., s.d., F. Sellow s.n. (lectotype, designated by Moraes [2009: 35], B 10 0185392).

Oreodaphne nitidula var. cuneifolia is here synonymized with Ocotea virgulosa because their respective type collections, Sellow s.n. and Martius s.n., have similar vegetative and reproductive parts.

Literature Cited


