

NEW NAMES AND COMBINATIONS IN NEOTROPICAL MYRSINACEAE

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ABSTRACT

Lundell (1981a, 1986) published 68 new names and combinations for binomials in *Ardisia* and *Myrsine*. In both papers, he indicated that he was opposed to placement of the taxa involved in those genera and that the combinations and new names were provided in anticipation of future circumscriptions of the genera. We agree with Morales (1997) that in doing so, Lundell inadvertently invalidated his new names and combinations, according to the *International Code of Botanical Nomenclature* Article 34.1. To remedy the situation, the following new combinations are proposed in *Myrsine*: *M. calcarata* (Lundell) Ricketson & Pipoly and *M. juergensenii* (Mez) Ricketson & Pipoly; the other seven Lundell combinations are taxonomic synonyms and thus, not in need of validation. In addition to those combinations validated by Morales (1997) in *Ardisia*, 27 new combinations are made, nine new names are proposed, and for those taxa described by Lundell in the segregate genus *Icacorea* Aublet but never transferred, five new combinations are proposed. The remaining 17 binomials are taxonomic synonyms and therefore, are not validated.

RESUMEN

Lundell (1981a, 1986) publicó 68 nombres y combinaciones nuevos para binomiales en los géneros *Ardisia* y *Myrsine*. En ambos trabajos, el indicó que no estaba de acuerdo con la ubicación taxnómica de los taxa dentro de los géneros susodichos y que se estaba llevando a cabo las combinaciones y nombres nuevos para anticipar circumscripciones futuras que podrían ser descritas para los géneros. Estamos de acuerdo con Morales (1997) quien consideraba que Lundell, por haber dicho eso claramente, invalidó sus nombres y combinaciones nuevos según el *Código Internacional de Nomenclatura Botánica* (ICBN) Artículo 34.1. Para corregir esta situación, las combinaciones nuevas se proponen dentro del género *Myrsine*: *M. calcarata* (Lundell) Ricketson & Pipoly, y *M. juergensenii* (Lundell) Ricketson & Pipoly; las otras siete combinaciones que hizo Lundell se consideran como sinónimos taxonómicos y por lo tanto, no necesitan ser transferidos. Además de las combinaciones validadas por Morales (1977) dentro de *Ardisia*, se proponen 27 combinaciones nuevas y nueve nombres

nuevos. Para los taxa descrito por Lundell dentro del género segregado como *Icacorea* Aublet, pero nunca transferidos al género *Ardisia*, se transfieren cinco combinaciones nuevas. Los 17 binomiales restantes son sinónimos taxonómicos y por lo tanto, no necesitan ser transferidos.

INTRODUCTION

Cyrus L. Lundell studied the neotropical members of the Myrsinaceae for over 60 years, and was the principal monographer of the family since the monograph of Mez (1902) in Engler's *Das Pflanzenreich*. In addition to treatments of the family for *Flora of Guatemala* (Lundell 1966) and *Flora of Panama* (Lundell 1971), Lundell published a series of 26 papers in the journals *Wrightia* and *Phytologia* dealing with the taxonomy of the family. The senior author began collaboration with Lundell in 1981 while a graduate student, and corresponded with him regarding generic delimitation for almost six years.

Ardisia was described by Swartz (1788) in his *Nova Genera et Species Plantarum*, and eventually conserved over the earlier *Icacorea* Aublet (1775). However, Lundell perceived that *Ardisia*, as defined in the broad sense by Mez (1902), was an artificial assemblage (paraphyletic in more modern terminology), and therefore, segregated the following genera from it: *Amatlaniania* Lundell (1982), *Auriculardisia* Lundell (1981c), *Chontalesia* Lundell (1982), *Gentlea* Lundell (1964), *Graphardisia* (Mez) Lundell (1981a), *Ibarrea* Lundell (1981a), *Oerstedianthus* Lundell (1981b), *Synardisia* (Mez) Lundell (1963), *Valerioanthus* Lundell (1982), *Yunckeria* Lundell (1964), and *Zunilia* Lundell (1981c). While some of these segregate genera undoubtedly represent monophyletic lineages, the question of their respective circumscriptions and the consequent limits of the pantropical genus *Ardisia*, as well as the limits of all the genera in the tribe Ardisieae, was often a source of confusion.

Simultaneously, circumscription of the genus *Myrsine* L. and its relationship to the pantropical genus *Rapanea* Aublet, formed another source of taxonomic debate. While Mez (1902) recognized *Myrsine* as a small genus of paleotropical species, Hosaka (1940) demonstrated that the characters used to separate the two were not constant, resulting in Walker's (1959) change in taxonomic opinion. Lundell (1966, 1971) recognized *Rapanea* as distinct from *Myrsine*, but noted that Stearn (1969) elected to accept the more inclusive concept of *Myrsine* to include *Rapanea* in his treatment of the Jamaican species, a view increasingly adopted by modern workers (see Pipoly 1996 for a complete discussion).

During the early 1980s, the senior author was in close communication with Lundell and frequently discussed the problem of generic delimitation in the Myrsinaceae, particularly when viewed on a worldwide basis. The problem was compounded when preliminary cladograms were tested, and it appeared that several groups recognized by Mez were found to be paraphyletic (Pipoly 1987). As Lundell carried out the mammoth job of describing the

many neotropical novelties discovered in the late 1970's and early 1980's, it became necessary for him to determine limits of the genera, and he apparently decided to provide names for the Ardisioid taxa both in the narrowest and broadest concepts that had been circumscribed to that date. Unfortunately, this philosophy led to the publication of two papers in which he essentially proposed new names and combinations in anticipation of future circumscription, even though he was not convinced of the placement of the taxa, thus invalidating all of them according to ICBN Article 34.1.

In preparation for our treatment of the Myrsinaceae for the *Flora Mesoamericana* Project of the National Herbarium of Mexico (MEXU), Missouri Botanical Garden (MO), the British Museum (BM) and other collaborators, we have published synopses for the genera *Myrsine* (Ricketson & Pipoly 1997a), *Stylogyne* (Ricketson & Pipoly 1997b), *Gentlea* (Ricketson & Pipoly 1997c), along with a revision of the genus *Ardisia* subgenus *Graphardisia* Mez (Pipoly & Ricketson, 1998). The problems posed by Lundell's (1981b) transfer of Mesoamerican *Rapanea* species to *Myrsine* were overlooked, but are rectified below. As work continues on *Ardisia* in its broadest sense, it becomes increasingly necessary to validate the invalid names and combinations made by Lundell (1986) in transferring species described in the various segregate genera of *Ardisia* to that genus, just as Morales (1997) did for only a few from Costa Rica and Panama. The consequent combinations, new names and updated synonymies for the taxa we recognize in these two problematic taxonomic groups are also effected below.

NOTES ON MYRSINE

Lundell (1981b) described the genera *Ibarrea* and *Oerstedianthus* as new, raised *Ardisia* subgenus *Graphardisia* to generic status, and transferred the Mesoamerican (and one Peruvian) species of *Rapanea* to *Myrsine*. However, in the introduction, Lundell stated "Nine species described in *Rapanea* Aubl., all except one from Mexico and Central America, are transferred to *Myrsine* L. to follow current practice, not out of any conviction as to the justification for this disposition of the taxa!" By including that statement in the introduction, he inadvertently invalidated the subject new combinations because Article 34.1 of the ICBN unequivocally states, "A name is not validly published (a) when it is not accepted by the author in the original publication; (b) when it is merely proposed in anticipation of the future acceptance of the group concerned, or of a particular circumscription, position or rank of the group (so-called provisional names), except as provided for in Art. 59..." While there is no doubt that Lundell recognized the entities involved as distinct taxa, we feel that he purposely effected the transfers as a result of discussions with the senior author and in anticipation of his (and others') future work on the group as the more broadly cir-

cumscribed *Myrsine* rather than setting it apart as *Rapanea*. Therefore, among the nine taxa he transferred, all are invalid. However, Ricketson and Pipoly (1997a) recognized only two of these species, *Myrsine calcarata* and *M. juergensenii*. The other six species, *Rapanea pittieri*, *R. peruviana*, *R. rufa*, *R. panamensis*, *R. allenii*, *R. mexicana* and *R. reflexiflora*, were synonymized, and thus the combinations made by Lundell are nomenclatural synonyms of them, with no need for validation. The new combinations and corrected synonymies for those species are presented below. For complete synonymies and citation of basionyms of recognized taxa, see Pipoly and Ricketson (1997a).

***Myrsine calcarata* (Lundell) Ricketson & Pipoly, comb. nov.** *Rapanea calcarata* Lundell, *Wrightia* 5:295. 1976. *Myrsine calcarata* (Lundell) Lundell, *Phytologia* 48:142. 1981, nomen invalidum. TYPE: COSTA RICA. ALAJUELA: S side of Volcán Poás, upper slopes, on road leading past weather station, without elev., 24 Mar 1972, D. Stone 3141 (HOLOTYPE: LL-TEX).

***Myrsine coriacea* (Sw.) R. Br. ex Roem. & Schult. subsp. *coriacea*, Syst. Veg. 4:511. 1819.**

Rapanea rufa Lundell, *Wrightia* 5:298. 1976. *Myrsine rufa* (Lundell) Lundell, *Phytologia* 48:142. 1981, nomen invalidum. TYPE: COSTA RICA. SAN JOSÉ: Cordillera de Talamanca, Pacific Slope of the Chirripó Massif, 2,700–3,000 m, 6 Apr 1969, G. Davidse & R. Pohl 1635 (HOLOTYPE: LL-TEX; ISOTYPE: MO).

***Myrsine dependens* (Ruíz & Pav.) Spreng., Syst. Veg. 1:664. 1825.**

Rapanea pittieri Mez in Engl., *Pflanzenr.* IV. 236(Heft 9):378. 1902. *Myrsine pittieri* (Mez) Lundell, *Phytologia* 48:142. 1981, nomen invalidum. TYPE: COSTA RICA. CARTAGO: Volcán Irazú, 3,000 m, H. Pittier 14111 (HOLOTYPE: B-destr. 1943; LECTOTYPE: by Pipoly 1992, BR; ISOLECTOTYPE: US).

Rapanea peruviana Lundell, *Wrightia* 6:117. 1980. *Myrsine peruviana* (Lundell) Lundell, *Phytologia* 48:142. 1981, nomen invalidum. TYPE: PERU. CUZCO: Tres Cruces, upper edge of Parque Nacional de Manu, 1–13 km NW of Paucartambo-Pilcopata Road, 3,300–3,500 m, 29 Jun 1978, A. Gentry et al. 23478 (HOLOTYPE: LL-TEX; ISOTYPES: MO, USM).

***Myrsine juergensenii* (Mez) Ricketson & Pipoly, comb. nov.** *Rapanea juergensenii* Mez in Engl., *Pflanzenr.* IV. 236(Heft 9):388. 1902. *Myrsine juergensenii* (Mez) Lundell, *Phytologia* 48:142. 1981, nomen invalidum. TYPE: MEXICO. OAXACA: without locality, without elev., without date, H. Galeotti 530 (LECTOTYPE: US, by Ricketson & Pipoly, 1997a; ISOLECTOTYPES: G, NY).

Rapanea allenii Lundell, *Wrightia* 4:168. 1971. *Myrsine allenii* (Lundell) Lundell, *Phytologia* 48:142. 1981, nomen invalidum. TYPE: PANAMA. CHIRIQUÍ: N forested face of Cerro Copete, an E spur of Chiriquí Volcano, 2,438–2,591 m, 29 Jul 1947, P. Allen 4869 (HOLOTYPE: US; ISOTYPES: G, MO).

Rapanea mexicana Lundell, *Wrightia* 5:296. 1976. *Myrsine mexicana* (Lundell) Lundell, *Phytologia* 48:142. 1981, nomen invalidum. TYPE: MEXICO. CHIAPAS: Pico de Loro, near Escuintla, without elev., 25 Jun 1941, E. Matuda 4228 (HOLOTYPE: LL-TEX; ISOTYPES: A, F, MO, NY, US).

Rapanea reflexiflora Lundell, *Wrightia* 5:297. 1976. *Myrsine reflexiflora* (Lundell) Lundell,

Phytologia 48:142. 1981, nomen invalidum. TYPE: PANAMA. COCLÉ: Woods adjacent to chicken farm, La Mesa, above El Valle, without elev., 3 Jan 1974, *J. Dwyer* 11885 (HOLOTYPE: LL-TEX; ISOTYPES: BRIT, F, MO, PMA).

Myrsine pellucidopunctata Oerst., Vidensk. Meddel. Dansk Naturhist. Fören. Kjøbenhavn 1861: 133. 1861.

Rapanea panamensis Lundell, Wrightia 4:169. 1971. *Myrsine panamensis* (Lundell) Lundell, Phytologia 48:142. 1981, nomen invalidum. TYPE: PANAMA. PANAMÁ: San José Island, Perlas Archipelago, Gulf of Panama, ca. 55 mi SSE of Balboa, main road W of Matta Puerco, 9 Nov 1944, *I. Johnston* 441 (HOLOTYPE: LL-TEX; ISOTYPES: GH, MO, US).

NOTES ON *ARDISIA*

The situation regarding generic delimitation among the taxa comprising *Ardisia* in its broadest sense, and that of the segregate taxa proposed or recognized by Lundell, was very similar to that described above for *Myrsine*. Work underway among these taxa for our studies in Mesoamerica has caused us to reexamine the nomenclatural legalities regarding the new combinations and names proposed by Lundell (1986), particularly in light of the recent new names and combinations made by Morales (1997), in his paper anticipating a treatment of the Myrsinaceae for the *A Manual to the Plants of Costa Rica*.

Lundell (1986) effected 59 nomenclatural changes, comprising 23 new names and 36 new combinations for taxa previously described in genera segregated from *Ardisia*. However, in the introduction, he stated, "Just as the very distinct genus *Icacorea* Aubl. has been ridiculously submerged as a subgenus of *Ardisia* Sw. for generations, we can also assume that the vagaries of taxonomists will result in the reduction of such recently described genera as *Auriculardisia* Lundell, *Gentlea* Lundell, *Graphardisia* Lundell, *Oerstedianthus* Lundell, *Ibarrea* Lundell, *Amatlantia* Lundell, and *Zunilia* Lundell to subgenera of *Ardisia*. The transfer of the following species is made to that genus to obviate the incentive of workers to undertake such unnecessary reductions to subgenera." While the wording of this introduction is not as clear a violation of the rules of Article 34.1 of the ICBN as that of the *Myrsine* paper, we feel that the intention was to specifically provide names "proposed in anticipation of the future acceptance of the group concerned, or of a particular circumscription, position or rank" and are therefore, invalid. This agrees with the conclusion reached by Morales (1997) in his validation for six of the subject taxa. In addition, while implied and not specifically stated, we feel that Lundell accepted the taxa, but not the names (i.e., the placement) he published in the work.

Our work thus far has shown that among the segregate genera recognized by Lundell, *Gentlea*, *Ctenardisia* Ducke (= *Yunckeria* Lundell), and *Synardisia* will all be recognized with certainty, while the remaining groups

will not. Because we recognize *Gentlea* as a genus distinct from *Ardisia*, no validation of the invalidly published Lundell new names and combinations for *Gentlea* species as members of *Ardisia* is necessary, but we provide the following corrections to synonymies listed in our previous work, to include the invalid names (Ricketson & Pipoly 1997c). For complete synonymies, see Ricketson and Pipoly (1997c).

***Gentlea austinsmithii* (Lundell) Lundell, Wrightia 4:68. 1968. *Gentlea molinae* Lundell, Wrightia 4:150. 1970. *Ardisia molinae* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: HONDURAS. LA PAZ: Montaña Verde on Cordillera Guajiquiro, 1,900 m, 23 Mar 1969 (fr), *A. Molina R. & A. Molina* 24389 (HOLOTYPE: LL-TEX; ISOTYPES: F, LL-TEX, NY).**

Gentlea parviflora Lundell, Wrightia 5:89. 1975, non *Ardisia parviflora* Talbot, Syst. List Trees, Bombay ed. 2, 204. 1902. *Ardisia parvissima* Lundell, Phytologia 61:66. 1986, nomen novum invalidum TYPE: GUATEMALA. BAJA VERAPAZ: Union Barrios, in high forest, on top of hill, E of km 154, 11 Apr 1975 (fl), *C. Lundell & E. Contreras* 19212 (HOLOTYPE: LL-TEX; ISOTYPES: CAS, LL-TEX).

***Gentlea crenulata* Lundell, Wrightia 6:96. 1979. Non *Ardisia crenulata* Vent., Choix Pl., 5, t. 5. 1803, non *Ardisia crenulata* C. Lodd., Bot. Cab. 1: t. 2., 1817, nom. illegit. *Ardisia contrerasii* Lundell, Phytologia 61:63. 1986, nomen novum invalidum. TYPE: GUATEMALA. BAJA VERAPAZ: Niño Perdido, bordering Río San José, 8 km N, in high forest, on top of hill, 27 May 1977 (fl, fr), *C. Lundell & E. Contreras* 21004 (HOLOTYPE: LL-TEX; ISOTYPES CAS, LL-TEX 2-SHEETS)**

***Gentlea lancifolia* Lundell, Phytologia 58:273. 1985. Non *Ardisia lancifolia* Merr., Philipp. J. Sci. 13:113. 1918. *Ardisia intibucana* Lundell, Phytologia 61:65. 1986, nomen novum invalidum. TYPE: HONDURAS. INTIBUCA: Between Calaveras and El Duraznillo, Cordillera Opalaca, 1,800 m, 12 Mar 1970 (fr), *A. Molina R. & A. Molina* 25547 (HOLOTYPE: F; ISOTYPE US).**

***Gentlea micranthera* (Donn. Sm.) Lundell, Wrightia 4:69. 1968.**

Gentlea cuneifolia Lundell, Wrightia 7:245. 1983. *Ardisia cuneifolia* (Lundell) Lundell, Phytologia 61:63. 1986, nomen invalidum. TYPE: MEXICO. VERACRUZ: Municipio de San Andrés Tuxtla, ca. del aguaje en el lado S del Volcán San Martín Tuxtla, 1,250 m, 15 Feb 1972 (fr), *J. Beaman & C. Alvarez del Castillo* 5751 (HOLOTYPE: LL-TEX; ISOTYPES: F, MEXU).

Gentlea auriculata Lundell, Phytologia 58:273. 1985, non *Ardisia auriculata* Donn. Sm., Bot. Gaz. 24:395. 1897. *Ardisia parviauriculata* Lundell, Phytologia 61:66. 1986, nomen novum invalidum. TYPE: GUATEMALA. ZACAPA: Sierra de Las Minas, middle and upper S-facing slopes of Volcán Gemelos, 2,100–3,200 m, 26 Jan 1942 (fl, fr), *J. Steyermark* 43277 (HOLOTYPE F; ISOTYPES: LL-TEX, US).

***Gentlea maculata* Lundell, Phytologia 58:274. 1985. Non *Ardisia maculata* . Poit. ex A. DC., Trans. Linn. Soc., London 17:116. 1834. *Ardisia morazanensis* Lundell, Phytologia 61:65. 1986, nomen novum invalidum. TYPE: HONDURAS. FRANCISCO MORAZAN: On mountain La Tigra, SW of San Juancito, 1,800–2,100 m, 2 Feb 1966 (fl), *A. Molina R., L. Williams, W. Burger & B. Wallenta* 16972 (HOLOTYPE: F; ISOTYPES: NY, US).**

***Gentlea standleyi* Lundell, Wrightia 4:69. 1968. *Ardisia standleyi* (Lundell) Lundell, Phytologia 61:67. 1986, nomen invalidum. TYPE: COSTA RICA. HEREDIA: Cerros**

de Zurquí, NE of San Isidro, 2,000–2,400 m (fr), 3 Mar 1926, *P. Standley & J. Valerio 50613* (HOLOTYPE: US; ISOTYPE: LL-TEX).

Gentlea venosissima (Ruíz & Pavón) Lundell, *Wrightia* 3:103. 1964.

Gentlea tenuis Lundell, *Wrightia* 7:24. 1981, non *Ardisia tenuis* Lundell, *Wrightia* 4:149. 1970. *Ardisia jitotolana* Lundell, *Phytologia* 61:65. 1986, nomen novum invalidum. TYPE: MEXICO. CHIAPAS: Municipio de Rayón, in the Selva Negra 10 km above Rayón Meycalapa along road to Jitotol, 1,700 m, 12 Dec 1971 (fl), *D. Breedlove 23144* (HOLOTYPE: F; ISOTYPES: DS, LL-TEX, MO, NY).

While we agree with Morales (1997) in his view that the new names and combinations published by Lundell (1986) are invalid, Morales did not make direct reference to the invalid names in the synonymy listed with new combinations. Therefore we provide them below in the interest of providing complete synonymy for those species.

Ardisia apodophylla J.F. Morales, *Phytologia* 83:111. 1997 [1998]. *Auriculardisia sessilifolia* Lundell, *Wrightia* 7:272. 1984, non *Ardisia sessilifolia* Mez in Engler, *Pflanzenr.* IV. 236(Heft 9):125. 1902. *Ardisia zarcerana* Lundell, *Phytologia* 61:68. 1986, nomen novum invalidum. TYPE: COSTA RICA. ALAJUELA: Cordillera Central near San Juan de Laja about 15 km N of Zarcero, 1,350 m, 7 Feb 1965 (fl, fr), *L. Williams, A. Molina R., T. Williams & D. Gibson 28998* (HOLOTYPE: F).

Ardisia bekomiensis (Lundell) J.F. Morales, *Phytologia* 83:111. 1997 [1998]. *Isacorea bekomiensis* Lundell, *Phytologia* 56:414. 1984. *Ardisia bekomiensis* (Lundell) Lundell, *Phytologia* 61:62. 1986, nomen invalidum. TYPE: COSTA RICA. PUNTARENAS–LIMÓN: border, Cordillera de Talamanca, Cerro Bekom, 11 airline km SSW of the peak of Cerro Kamuk, 9° 10' 30" N, 83° 03' 45" W, 2,600–2,750 m, 21 Mar 1984 (fl), *G. Davidse, G. Herrera Ch. & R. Warner 25710* (HOLOTYPE: LL-TEX; ISOTYPES: INB, MO).

Ardisia eurubiginosa (Lundell) J.F. Morales, *Phytologia* 83:111. 1997 [1998]. *Auriculardisia eurubiginosa* Lundell, *Phytologia* 56:413. 1984. *Ardisia eurubiginosa* (Lundell) Lundell, *Phytologia* 61:63. 1986, nomen invalidum. TYPE: PANAMA. BOCAS DE TORO: Cordillera de Talamanca, 2–5 airline km NW of the Peak of Cerro Echandi on the Costa Rican–Panamanian international border, 2,600–2,850 m, 1–9 Mar 1984 (fl, fr), *G. Davidse, L. Gómez, G. Herrera, C. Chacón, I. Chacón & A. Chacón 25486* (HOLOTYPE: LL-TEX; ISOTYPES: INB, MO, NY).

Ardisia quadrata (Lundell) J.F. Morales, *Phytologia* 83:111. 1997 [1998]. *Auriculardisia quadrata* Lundell, *Phytologia* 56:413. 1984. *Ardisia quadrata* (Lundell) Lundell, *Phytologia* 61:66. 1986, nomen invalidum. TYPE: COSTA RICA. PUNTARENAS: Foothills of the Cordillera de Talamanca, around Tres Colinas, 9° 07' N, 83° 04' W, 1,800–1,850 m, 20 Mar 1984 (fl) *G. Davidse, G. Herrera Ch. & R. Warner 25645* (HOLOTYPE: LL-TEX; ISOTYPES: INB, MO).

Ardisia sordida (Lundell) J.F. Morales, *Phytologia* 83:111. 1997 [1998]. *Auriculardisia sordida* Lundell, *Wrightia* 7:272. 1984. *Ardisia sordida* (Lundell) Lundell, *Phytologia* 61:66. 1986, nomen invalidum. TYPE: COSTA RICA. ALAJUELA: Finca Los Ensayos, ca. 11 mi. NW of Zarcero, ca. 850 m, 15 Aug 1977 (fl), *T. Croat 43538* (HOLOTYPE: LL-TEX; ISOTYPES: CR, MO).

Ardisia squamata (Lundell) J.F. Morales, *Phytologia* 83:111. 1997 [1998]. *Auriculardisia squamata* Lundell, *Phytologia* 56:19. 1984. *Ardisia squamata* (Lundell)

Lundell, *Phytologia* 61:67. 1986, nomen invalidum. TYPE: COSTA RICA. HEREDIA: Original forest near the Río Puerto Viejo, ca. 2 km upstream from the confluence with Río Sarapiquí, formerly "Finca La Selva" of L.R. Holdridge, 10° 26' N, 84° 0' W, 100 m, 1417 Jun 1968 (fl), *W. Burger & R. Stolze 5853* (HOLOTYPE: F; ISOTYPES: CR, F, TEX, MO).

Regarding those taxa originally placed by Lundell (1981a) in his concept of the segregate genus *Graphardisia*, the following binomials invalidly published by Lundell (1986) as new combinations and names: *Ardisia coibana* (Lundell) Lundell, *Ardisia ebingeri* Lundell, *Ardisia esquipulasana* Lundell, *Ardisia neohyalina* Lundell, *Ardisia obtusata* (Lundell) Lundell, *Ardisia riomontana* Lundell, *Ardisia seranoana* (Lundell) Lundell and *Ardisia ustupoana* (Lundell) Lundell, are considered taxonomic synonyms (Pipoly & Ricketson 1998) and thus, need no validation.

Lundell (1986) also described two new species of *Ardisia*, *A. hirsutissima* Lundell, and *A. tarariae* Lundell. He aligned *Ardisia hirsutissima* with *A. nevermannii* and *A. ursina*, two species he had previously transferred (Lundell 1982) to his segregate genus *Valerioanthus*, and subsequently transferred them once more, to his segregate genus *Auriculardisia* (Lundell 1985). Curiously, Lundell (1987) transferred *Ardisia hirsutissima* to *Valerioanthus* rather than to *Auriculardisia*, as he had previously done with the other members of *Valerioanthus* and which, at that point, had its type already transferred. It is unclear whether these nomenclatural transactions represent a mere *lapsus calimae*, or a purposeful taxonomic decision. Lundell (1987) validly transferred *Ardisia tarariae* Lundell to *Auriculardisia*. However, our studies have shown that this taxon is also best retained in *Ardisia*. In order to provide complete synonymies for these apparent taxonomic nomads, we provide the following nomenclator.

Ardisia hirsutissima Lundell, *Phytologia* 61:64. 1986. *Valerioanthus hirsutissima* (Lundell) Lundell, *Phytologia* 63:78. 1987. TYPE: PANAMA. COCLÉ: Continental Divide above El Copé, 8° 38' N, 80° 39' W, 650750 m, 27 Nov 1985 (fr), *G. de Nevers, A. Henderson, H. Herrera, G. McPherson & L. Brako 6408* (HOLOTYPE: LL-TEX; ISOTYPES: BM, CAS, CR, MEXU, MO, NY, PMA).

Ardisia nevermannii Standl., *J. Wash. Acad. Sci.* 17:524. 1927. *Valerioanthus nevermannii* (Standl.) Lundell, *Wrightia* 7:50. 1982. *Auriculardisia nevermannii* (Standl.) Lundell, *Phytologia* 57:450. 1985. TYPE: COSTA RICA. LIMÓN: Finca Montecristo, on the Río Reventazón, below El Cairo, ca. 25 m, 18–19 Feb 1926 (fl), *P. Standley & J. Valerio 48603* (HOLOTYPE: US).

Ardisia ursina Lundell, *Wrightia* 6:97. 1979. *Valerioanthus ursinus* (Lundell) Lundell, *Wrightia* 7:50. 1982. *Auriculardisia ursinus* (Lundell) Lundell, *Phytologia* 57:450. 1985. TYPE: PANAMA. PANAMÁ: El Llano-Carti Road, 10 km from Inter-American Hwy., without elev., 5 Oct 1974 (fl), *S. Mori & J. Kallunki 2314* (HOLOTYPE: MO).

Ardisia tartariae Lundell, *Phytologia* 61:67. 1986. *Auriculardisia tartariae* (Lundell) Lundell, *Phytologia* 63:75. 1987. TYPE: COSTA RICA. LIMÓN: Cordillera de Talamanca,

Atlantic slope, Cerros Tararia (locally known as Tres Picos), 2,400–2,600 m, 10 Sep 1984 (fl), *G. Davidse, G. Herrera Ch. & M. Grayum* 28882 (HOLOTYPE: LL-TEX; ISOTYPE: MO).

For the remaining 27 binomials invalidly published by Lundell (1986), we provide the following new names and combinations.

Ardisia alajuelae (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea alajuelae* Lundell, Phytologia 56:141. 1984. *Ardisia alajuelae* (Lundell) Lundell, Phytologia 61:62. 1986, nomen invalidum. TYPE: COSTA RICA. ALAJUELA: San Pedro de San Ramón, without elev., 12 Mar 1932 (fl), *A. Brenes* 15091 (HOLOTYPE: NY).

Ardisia albipedicellata Pipoly & Ricketson, nom. nov. *Icacorea parvifolia* Lundell, Phytologia 57:452. 1985, non *Ardisia parvifolia* Humb. ex Willd. in Roem. & Schult, Syst. Veg. 4:804. 1819. *Ardisia albipedicellata* Lundell, Phytologia 61:62. 1986, nomen novum invalidum. TYPE: COSTA RICA. PUNTARENAS: Just E of Monteverde on the Pacific watershed, 10° 18' N, 84° 48' W, 1,3001,450 m, 29 Oct–2 Nov 1975 (fl), *W. Burger & R. Baker* 9628 (HOLOTYPE: F).

Ardisia albisepala (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia albisepala* Lundell, Wrightia 7:266. 1984. *Ardisia albisepala* (Lundell) Lundell, Phytologia 61:62. 1986, nomen invalidum. TYPE: PANAMA. VERAGUAS: Trail on ridge to summit of Cerro Tute, Cordillera de Tute, 1 km past Escuela Agrícola Altos de Piedras, W of Santa Fe, 8° 36' N, 81° 06' W, 9501,250 m, 15 Dec 1981 (fl), *S. Knapp & K. Sytsma* 2548 (HOLOTYPE: LL-TEX; ISOTYPES: MO, NY).

Ardisia azaharensis Pipoly & Ricketson, nom. nov. *Auriculardisia microcalyx* Lundell, Wrightia 7:270. 1984, non *Ardisia microcalyx* Lundell, Wrightia 4:46. 1968. *Ardisia azaharensis* Lundell, Phytologia 61:62. 1986, nomen invalidum. TYPE: COSTA RICA. ALAJUELA: 15 km NW of San Ramón by air, Cerro Azahar, headwaters of Río San Pedro, by road, 9 km NW of San Ramón to Piedades Norte, then 3 more km NW to La Paz, 1.7 km to cluster of houses, then left again on jeep road 45 km to top of ridge, 10° 09' 30" N, 84° 34' 35" W, 1,4001,500 m, 14 May 1983 (fr), *R. Liesner, E. Judziwicz, J. Gómez-Laurito, B. Pérez G. & A. Carvajal* 15575 (HOLOTYPE: LL-TEX; ISOTYPES: F, MO).

Ardisia bristanii Pipoly & Ricketson, nom. nov. *Auriculardisia parviflora* Lundell, Wrightia 7:271. 1984, non *Ardisia parviflora* Talbot, Syst. list Trees, Bombay ed. 2, 204. 1902. *Ardisia bristanii* Lundell, Phytologia 61:62. 1986, nomen novum invalidum. TYPE: PANAMA. DARIÉN: Cerro Pirre, without elev., 4 Aug 1967 (fl), *N. Bristan* 1236 (HOLOTYPE: US; ISOTYPE: MO).

Ardisia chiriquiana (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia chiriquiana* Lundell, Wrightia 7:267. 1984. *Ardisia chiriquiana* (Lundell) Lundell, Phytologia 61:62. 1986, nomen invalidum. TYPE: PANAMA. CHIRIQUÍ: Trail up Cerro Pate Macho, 8° 50' N, 82° 25' W, 1,5001,900 m, 7 Jan 1938 (fl), *B. Stein, B. Schmalzel & D. Roubik* 1223 (HOLOTYPE: LL-TEX; ISOTYPE: MO).

Ardisia dressleri Pipoly & Ricketson, nom. nov. *Auriculardisia roseiflora* Lundell, Wrightia 7:271. 1984, non *Ardisia roseiflora* Pitard, Fl. Indo-Chine, 3:866. 1930. *Ardisia dressleri* Lundell, Phytologia 61:63. 1986, nomen novum invalidum. TYPE: PANAMA. COCLÉ: Trail from Continental Divide near the sawmill above El Copé to Río Blanco del Norte, 8° 40' N, 80° 36' W, 350700 m, 20 Feb 1982 (fl), *S. Knapp, J. Mallet & R. Dressler* 3646 (HOLOTYPE: MO).

Ardisia dryeri Pipoly & Ricketson, nom. nov. *Auriculardisia micrantha* Lundell, *Wrightia* 7:269. 1984, non *Ardisia micrantha* Kunth, *Nov. Gen. Sp.* 3:246. 1818 [1819], non *Ardisia micrantha* Donn. Sm., *Bot. Gaz.* 14:26. 1889, nom. illeg. *Ardisia dryeri* Lundell, *Phytologia* 61:63. 1986, nomen invalidum. TYPE: COSTA RICA. ALAJUELA or PUNTARENAS: Reserva de Monteverde, Cordillera de Tilaran, al lado del camino por la ventana, Div. Continental, 1,560–1,580 m, 15 Aug 1976 (fl), V. Dryer 577 (HOLOTYPE: MO; ISOTYPE: F).

Ardisia eciliata (Lundell) Pipoly & Ricketson, comb. nov. *Zunilia eciliata* Lundell, *Phytologia* 58:490. 1985. *Ardisia eciliata* (Lundell) Lundell, *Phytologia* 61:63. 1986, nomen invalidum. TYPE: MEXICO. CHIAPAS: Municipio de Ocozocoautla de Espinosa, Cerro del Ocote, 30 km NW of Ocozocoautla, 1,500 m, 14 Oct 1972 (fl), D. Breedlove 28973 (HOLOTYPE: LL-TEX; ISOTYPES: CAS-DS, MEXU, MO).

Ardisia ellipticifolia Pipoly & Ricketson, nom. nov. *Amatlanian elliptica* Lundell, *Phytologia* 56:19. 1984, non *Ardisia elliptica* Thunb., *Nov. Gen. Pl.* 8:119. 1798. *Ardisia elliptifolia* Lundell, *Phytologia* 61:63. 1986, nomen novum invalidum. TYPE: MEXICO. OAXACA: Municipio de Comaltepec, km 149 carr. Tuxtepec, Sierra Juárez, Puerto Eligio, 800 m, 17 Jun 1966 (fr), G. Martínez C. 884 (HOLOTYPE: XAL; ISOTYPES: MEXU, MO).

In choosing the epithet 'ellipticifolia' over 'elliptifolia' used by Lundell, we believe we are correcting a spelling error rather than changing the stem.

Ardisia eucuneata (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia eucuneata* Lundell, *Phytologia* 57:449. 1985. *Ardisia eucuneata* (Lundell) Lundell, *Phytologia* 61:63. 1987, nomen invalidum. TYPE: PANAMA. SAN BLAS: Nusagandi, trail from camp NW to a Quebrada, 9° 19' N, 78° 15' W, 300 m, 31 Jul 1984 (fl), G. de Nevers & C. de Leon 3598 (HOLOTYPE: LL-TEX; ISOTYPE: MO).

Ardisia feniana Pipoly & Ricketson, nom. nov. *Zunilia purpusii* Lundell, *Phytologia* 58:491. 1985, non *Ardisia purpusii* Brandeg., *Univ. Calif. Publ. Bot.* 6:189. 1915. *Ardisia feniana* Lundell, *Phytologia* 61:64. 1986, nomen novum invalidum. TYPE: MEXICO. CHIAPAS: Mountains near Fenia, without elev., May 1925 (fr), C. Purpus 100 (HOLOTYPE: US).

Ardisia guanacastensis (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea guanacastensis* Lundell, *Phytologia* 56:415. 1984. *Ardisia guanacastensis* (Lundell) Lundell, *Phytologia* 61:64. 1986, nomen invalidum. TYPE: COSTA RICA. GUANACASTE: Parque Nacional Rincon de la Vieja, the SE slopes of Volcán Santa Maria, above Estacion Hacienda Santa Maria, 10° 47' N, 85° 18' W, 9001,200 m, 2728 Jan 1983 (fl), G. Davidse, L. Gómez, M. Sousa, C. Humphries, N. Garwood, R. Hampshire & M. Gibby 23307 (HOLOTYPE: LL-TEX; ISOTYPES: MO, NY).

Ardisia guinealensis (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea guinealensis* Lundell, *Phytologia* 56:416. 1984. *Ardisia guinealensis* (Lundell) Lundell, *Phytologia* 61:64. 1986, nomen invalidum. TYPE: COSTA RICA. PUNTARENAS: Foothills of the Cordillera de Talamanca, vicinity of Helechales, along the Río Guineal, 9° 04' 30" N, 83° 05' W, 1,1001,200 m, 29 Mar 1984 (fr), G. Davidse & G. Herrera Ch. 26215 (HOLOTYPE: LL-TEX; ISOTYPE: MO).

Ardisia heterotricha (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia heterotricha* Lundell, *Wrightia* 7:268. 1984. *Ardisia heterotricha* (Lundell) Lundell, *Phytologia* 61:64. 1986, nomen invalidum. TYPE: PANAMA. PANAMA: On road near

slopes of Cerro Jefe, 2,400 ft [732 m], 20 Jan 1980 (fr), *T. Antonio, H. Moore & F. Putz 3417* (HOLOTYPE: MO).

Ardisia hornitoana Pipoly & Ricketson, nom. nov. *Icacorea reflexa* Lundell, Phytologia 56:20. 1984, non *Ardisia reflexa* Wall., Cat. No. 2282. 1830. *Ardisia hornitoana* Lundell, Phytologia 61:64. 1986, nomen novum invalidum. TYPE: PANAMA. CHIRIQUÍ: Path from Linares farm ca. 1,400 m to top of Cerro Hornito, 1,750 m, 27 Dec 1977 (fl), *J. Folsom, R. Dressler & R. Channell 7257* (HOLOTYPE: LL-TEX; ISOTYPE: MO).

Ardisia hugonensis (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia hugonensis* Lundell, Wrightia 7:268. 1984. *Ardisia hugonensis* (Lundell) Lundell, Phytologia 61:64. 1986, nomen invalidum. TYPE: COLOMBIA. CHOCO: Municipio de Quibdó, Corregimiento de Guayabal, Río Hugón, without elev., 12 Sep 1976 (fr), *E. Forero & R. Jaramillo 2812* (HOLOTYPE: NY; ISOTYPE: MO).

Ardisia ixcanensis (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea ixcanensis* Lundell, Phytologia 58:489. 1985. *Ardisia ixcanensis* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: MEXICO. CHIAPAS: Municipio La Independencia, 12 km from Laguna Tsiskaw on road to Ixcán, 1,250 m, 19 Oct 1974 (fl), *D.E. Breedlove 38965* (HOLOTYPE: CAS-DS).

Ardisia jaliscensis (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea jaliscensis* Lundell, Phytologia 53:412. 1983. *Ardisia jaliscensis* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: MEXICO. JALISCO: Along road to Jirosto, ca. 10 km WNW of Purificación, 19° 44' N, 104° 42' W, 400 m, 11 Jan 1979 (fr), *H. Iltis & M. Nee 1437* (HOLOTYPE: LL-TEX; ISOTYPE: US).

Ardisia knappii (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia knappii* Lundell, Phytologia 55:235. 1984. *Ardisia knappii* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: PANAMA. SAN BLAS: 23–29 km from Pan-American Highway on El Llano-Cartí Road, 9° 22' N, 78° 69' W, 300400 m, 28 Oct 1981 (fl), *S. Knapp 1843* (HOLOTYPE: LL-TEX; ISOTYPE: MO).

Ardisia latisepala (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia latisepala* Lundell, Wrightia 7:269. 1984, non *Icacorea latisepala* Lundell, Phytologia 56:417. 1984. *Ardisia latisepala* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: COSTA RICA. PUNTARENAS: 6 km S of San Vito de Java, around Wilson's finca, ca. 4,000 ft [1,219 m], 19 Aug 1967 (fl), *P. Raven 21653A* (HOLOTYPE: F; ISOTYPE: MO).

Ardisia leptopoda (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia leptopoda* Lundell, Phytologia 57:450. 1985. *Ardisia leptopoda* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: PANAMA. CHIRIQUÍ: E of Guadeloupe along the Río Chiriquí Viejo, ca. 2 mi NE of Cerro Punta, ridge of Cerro Respinga, ca. 7,000 ft [2,134 m], 13 Jan 1971 (fr), *R. Wilbur, J. Teeri & R. Foster 13111* (HOLOTYPE: F).

Ardisia monteverdeana (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea monteverdeana* Lundell, Phytologia 57:451. 1985. *Ardisia monteverdeana* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: COSTA RICA. PUNTARENAS: Monteverde, Laguna-Hollander's & Hoge's, 1,320 m, 10 Dec 1979 (fl), *S. Koptur SK-251* (HOLOTYPE: LL-TEX; ISOTYPE: MO).

Ardisia nebulosa (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia nebulosa* Lundell, Wrightia 7:270. 1984. *Ardisia nebulosa* (Lundell) Lundell, Phytologia 61:65. 1986, nomen invalidum. TYPE: PANAMA. PANAMÁ: Cerro Jefe, 850–900 m, 29 Oct 1980 (fr), *K. Sytsma 1980* (HOLOTYPE: LL-TEX; ISOTYPES: BM, MO).

- Ardisia neomirandae*** Pipoly & Ricketson, nom. nov. *Zunilia mirandae* Lundell, Phytologia 58:491. 1985, non *Ardisia mirandae* Merr., Philipp. J. Sci. 12:154. 1917. *Ardisia neomirandae* Lundell, Phytologia 61:66. 1986, nomen novum invalidum. TYPE: MEXICO. CHIAPAS: Finca Prusia, por camino a Mapastepec hasta-ca. Triunfo (S. Jaltenango), without elev., 24 Feb 1951 (fl), *F. Miranda 7004* (HOLOTYPE: MEXU).
- Ardisia oaxacana*** (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea oaxacana* Lundell, Wrightia 7:48. 1982. *Ardisia oaxacana* (Lundell) Lundell, Phytologia 61:66. 1986, nomen invalidum. TYPE: MEXICO. OAXACA: Municipio Pluma Hidalgo, carretera Pochutla, Oaxaca, 1 km al N de Chacalapa, 13 km al N de Pochutla, 225 m, 13 Nov 1979 (fl), *S. Koch, P. Fryxell y T. Wendt 79512* (HOLOTYPE: LL-TEX; ISOTYPES: F, MO, NY).
- Ardisia parvidenticulata*** Pipoly & Ricketson, nom. nov. *Icacorea denticulata* Lundell, Phytologia 56:415. 1984, non *Ardisia denticulata* Blume, Bijdr. 13: 691. 1826. *Ardisia parvidenticulata* Lundell, Phytologia 61:66. 1986, nomen novum invalidum. TYPE: COSTA RICA. ALAJUELA or PUNTARENAS: Cordillera de Tilarán, Flora of Monteverde, comunidad, 1,400–1,500 m, 28 Nov 1976 (fl), *V. Dryer 1010* (HOLOTYPE: F).
- Ardisia parvipunctata*** (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea parvipunctata* Lundell, Wrightia 7:274. 1984. *Ardisia parvipunctata* (Lundell) Lundell, Phytologia 61:66. 1986, nomen invalidum. TYPE: MEXICO. OAXACA: Along highway 175, in the vicinity of La Galera, ca. 500 m S, 2.1 mi N of turn-off to Pluma Hidalgo, 9.6 mi S of Puente Jalatengo near village of Jalatengo, loose slope along ravine above spring on highway, 1,340 m, 20 Jan 1979 (fr), *T. Croat 46150* (HOLOTYPE: MO).
- Ardisia samalana*** (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea samalana* Lundell, Phytologia 57:451. 1985. *Ardisia samalana* (Lundell) Lundell, Phytologia 61:66. 1986, nomen invalidum. TYPE: GUATEMALA. QUETZALTENANGO: Hot springs along Río Samalá, below Zunil, 2,500 m, 24 Jan 1940 (fl), *J. Steyermark 34962* (HOLOTYPE: F).
- Ardisia steinii*** Pipoly & Ricketson, nom. nov. *Auriculardisia baruana* Lundell, Wrightia 7:267. 1984, non *Ardisia baruana* Lundell, Wrightia 6:61. 1979. *Ardisia steinii* Lundell, Phytologia 61:67. 1986, nomen novum invalidum. TYPE: PANAMA. CHIRIQUÍ: Volcán Baru, E slope on road from Boquete, 8 km W of Boquete (air distance), 8° 50' N, 82° 30' W, 1,900 m, 8 Jan 1983 (fr), *B. Stein 1267* (HOLOTYPE: LL-TEX; ISOTYPE: MO).
- Ardisia stevensii*** (Lundell) Pipoly & Ricketson, comb. nov. *Gentlea stevensii* Lundell, Wrightia 6:97. 1979. *Ardisia stevensii* (Lundell) Lundell, Phytologia 61:67. 1986, nomen invalidum. TYPE: NICARAGUA. CHONTALES: ca. 2.8 km above (N of) Cuapa, 12° 17' N, 85° 23' W, 400500 m, 21 Jan 1978 (fr), *W. Stevens 6053* (HOLOTYPE: LL-TEX; ISOTYPE: MO).
- Ardisia toroana*** (Lundell) Pipoly & Ricketson, comb. nov. *Auriculardisia toroana* Lundell, Wrightia 7:273. 1984. *Ardisia toroana* (Lundell) Lundell, Phytologia 61:67. 1986, nomen invalidum. TYPE: PANAMA. BOCAS DEL TORO: 15 km up the Changuinola river to I.R.H.E. dam site No. 1, near campsite on trail to ridge NE of campsite, 800–900 ft [244–274 m], 12 Dec 1979 (fl), *T. Antonio 3079* (HOLOTYPE: LL-TEX; ISOTYPE: MO).
- Ardisia triangula*** (Lundell) Pipoly & Ricketson, comb. nov. *Icacorea triangula* Lundell, Phytologia 56:417. 1984. *Ardisia triangula* (Lundell) Lundell, Phytologia

61:67. 1984, nomen invalidum. TYPE: COSTA RICA. SAN JOSÉ: Patarrá, Cerro El Espino, Alto Mata de Caña-Azahar, 1,600–1,800 m, 13 Nov 1983 (fl, fr), *G. Herrera & I. Chacón 1579* (HOLOTYPE: LL-TEX; ISOTYPES: MO, NY).

***Ardisia utleyi* (Lundell) Pipoly & Ricketson, comb. nov.** *Icacorea utleyi* Lundell, Phytologia 57:452. 1985. *Ardisia utleyi* (Lundell) Lundell, Phytologia 61:68. 1986, nomen invalidum. COSTA RICA. SAN JOSÉ: 2–5 km SE of Higuito on Calle Tablazo or 8–12 km SE of Desemparados, 1,800–1,900 m, 5 Sep 1975 (fl), *J. Utley & K. Utley 3023* (HOLOTYPE: F).

***Ardisia warneri* Pipoly & Ricketson, nom. nov.** *Icacorea brevipes* Lundell, Phytologia 56:414. 1984, non *Ardisia brevipes* Lundell, Wrightia 3:97. 1964. *Ardisia warneri* Lundell, Phytologia 61:68. 1986, nomen novum invalidum. TYPE: COSTA RICA. PUNTARENAS: Foothills of the Cordillera de Talamanca, around Tres Colinas, 1,800–1,850 m, 20 Mar 1984 (fr), *G. Davidse, G. Herrera Ch. & R. Warner 25680* (HOLOTYPE: LL-TEX; ISOTYPES: BM, MO, NY).

***Ardisia wendtii* (Lundell) Pipoly & Ricketson, comb. nov.** *Ibarraea wendtii* Lundell, Wrightia 7:46. 1982. *Ardisia wendtii* (Lundell) Lundell, Phytologia 61:68. 1986, nomen invalidum. TYPE: MEXICO. VERACRUZ: Municipio Minatitlán, 8.2 km al N de la terracería La Laguna-Río Grande, sobre camino nuevo, a Ejido Belisario Domínguez, el cual sale de la terracería 14.7 km al E de La Laguna, 17° 22' N, 94° 22' O, 130 m, 16 Jul 1980 (fl, fr), *T. Wendt, A. Villalobos, R. Lara, M. Navarrete & I. Navarrete 2584* (HOLOTYPE: LL-TEX; ISOTYPES: F, MO).

Finally, the following five taxa were originally described by Lundell (1984, 1987) as species of *Icacorea*, but our studies indicate they are members of *Ardisia* subgenus *Icacorea*, to which we effect the transfers using the following new names and combinations.

***Ardisia albipetala* (Lundell) Pipoly & Ricketson, comb. nov.** *Icacorea albipetala* Lundell, Phytologia 63:465. 1987. TYPE: PANAMA. BOCAS DEL TORO: Region of Cerro Colorado, on trails from continental divide 7 mi. from Champi Camp, ca. 8° 35' N, 81° 45' W, 1,500 m, 12 Apr 1986 (fl), *G. McPherson 8832* (HOLOTYPE: LL-TEX; ISOTYPES: MEXU, MO, PMA).

***Ardisia duripetala* (Lundell) Pipoly & Ricketson, comb. nov.** *Icacorea duripetala* Lundell, Phytologia 63:464. 1987. TYPE: PANAMA. CHIRIQUÍ: S slopes of Cerro Horqueta, N of Boquete, 6,500 ft [1,981 m], 21 Jan 1971 (fl), *R. Wilbur, J. Teeri & R. Foster 13471* (HOLOTYPE: LL-TEX).

***Ardisia hatoana* (Lundell) Pipoly & Ricketson, comb. nov.** *Icacorea hatoana* Lundell, Phytologia 63:464. 1987. TYPE: PANAMA. CHIRIQUÍ: Near Las Lagunas, W of El Hato del Volcán, ca. 1,400 m, 15 Jan 1970 (fl), *R. Wilbur, R. Weaver, R. Foster & M. Correa 11002* (HOLOTYPE: LL-TEX; ISOTYPE: DUKE).

***Ardisia lajana* (Lundell) Pipoly & Ricketson, comb. nov.** *Icacorea lajana* Lundell, Phytologia 63:465. 1987. TYPE: MEXICO. VERACRUZ: Municipio Zapata, La Laja, entre Corral Falso y Pinaltepec, a 900 m de carretera Xalapa-Veracruz por camino Corral Falso-Pinaltepec, 900 m, 8 Ene 1985 (fr), *H. Hernández y R. Torres 769* (HOLOTYPE: LL-TEX; ISOTYPES: CHAPA, ENCB, MEXU, MO).

***Ardisia mesoamericana* Pipoly & Ricketson, nom. nov.** *Icacorea latisejala* Lundell, Phytologia 56:417. 1984, non *Ardisia latisejala* (Lundell) Pipoly & Ricketson, Sida 18: 513. 1998. (based on *Auriculardisia latisejala* Lundell, Wrightia 7: 269. 1984).

TYPE: PANAMA. BOCAS DEL TORO: Cordillera de Talamanca, 8 airline km NW of the peak of Cerro Echandi on the Costa Rican-Panamanian international border, 9° 05' 30" N, 82° 51' 30" W, 2,8002,900 m, 49 Mar 1984 (fl), G. Davidse, L. Gómez, G. Herrera, C. Chacón & A. Chacón 25279 (HOLOTYPE: LL-TEX; ISOTYPES: BM, MO, NY).

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