CANOPARMELIA

John A.Elix

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Canoparmelia Elix & Hale, *Mycotaxon* 27: 277 (1986); from the Latin *canus* (hoary or greyish white), in reference to the colour of the upper surface of this segregate of *Parmelia*.

Type: *C. texana* (Tuck.) Elix & Hale

Thallus foliose, adnate or tightly adnate. Lobes sublinear to subirregular, 0.5–8 mm wide, eciliate; apices subrotund to rotund, more rarely truncate. Upper surface ashy white to grey or grey-green (atranorin and chloroatranorin), without pseudocyphellae, with or without maculae, isidia, pustules and soredia; upper cortex consisting of basic palisade plectenchyma with pored epicortex. Cell walls containing isolichenan. Medulla loosely packed, white, rarely buff, or partly yellow or orange. Lower surface commonly black, rarely pale brown, with concolorous rhizines; lobe margins with a narrow (less than 1 mm wide), pale, erhizinate zone; rhizines simple, tufted or not. Ascomata apothecial, laminal, sessile or subpedicellate; disc entire. Ascospores commonly ellipsoidal, rarely elongated ellipsoidal or curved, 8 per ascus, 7–20 × 4–9 µm. Conidiomata pycnidial, laminal or rarely marginal, punctiform or rarely crateriform, immersed or rarely slightly emergent; ostiole jet-black. Conidia bifusiform, more rarely cylindrical, bacilliform, fusiform or filiform.

The lichen genus *Canoparmelia*, a segregate of *Parmelia* Ach. *s. lat*., was formerly included in *Pseudoparmelia* Lynge (Hale, 1976). However, it became increasingly obvious that *Pseudoparmelia* was a heterogeneous assemblage of species (Hale, 1974, 1976) and a new circumscription of *Pseudoparmelia s. str*. (Hale, 1986) excluded the majority of species formerly accommodated in this genus. Subsequently, these species were divided into four segregate genera (one of which was *Canoparmelia*) on the basis of morphological, distributional, ecological, cortical and chemical characters (Elix, Johnston & Verdon, 1986). At that time, ten species of *Canoparmelia* were known to occur in Australia and a further five species have been recognised since then. These species are found on trees and rocks, generally in subtropical and tropical forests and woodlands, although several species are quite common in temperate areas.

M.E.Hale, New Combinations in the Lichen Genus *Pseudoparmelia* Lynge, *Phytologia* 29: 188–191 (1974); M.E.Hale, A monograph of the Lichen Genus *Pseudoparmelia* Lynge (Parmeliaceae), *Smithsonian Contr. Bot*. 31: 1–62 (1976); J.A.Elix & G.N.Stevens, New species of *Parmelia* (lichens) from Australia, *Austral. J. Bot.* 27: 873–883 (1979); R.B.Filson, A Contribution on the genus *Parmelia* (Lichens) in Southern Australia, *Austral. J. Bot*. 30: 511–582 (1982); M.E.Hale, *Flavoparmelia*, a new Genus in the Lichen Family Parmeliaceae (Ascomycotina), *Mycotaxon* 25: 603–605 (1986); J.A.Elix, J.Johnston & D.Verdon, *Canoparmelia*, *Paraparmelia* and *Relicinopsis*, three new genera in the Parmeliaceae (lichenized Ascomycotina), *Mycotaxon* 27: 271–282 (1986); J.A.Elix & J.Johnston, New species in the lichen family Parmeliaceae (Ascomycotina) from the Southern Hemisphere, *Mycotaxon* 31: 491–510 (1988); J.A.Elix, New species in the lichen family Parmeliaceae (Ascomycotina) from Australia, *Mycotaxon* 47: 101-129 (1993).

1 Thallus sorediate or pustulate-isidiate 2

1: Thallus lacking soredia, pustules and isidia 10

2 Thallus pustulate-isidiate *(1)* 3

2: Thallus sorediate 4

3 Thallus containing divaricatic acid; isidia rarely bursting apically; lower medulla occasionally yellow in patches *(2)* ..... **8. C. owariensis**

3: Thallus containing sekikaic acid; isidia bursting apically; medulla white throughout ..... **10. C. pustulescens**

4 Medulla P+ yellow or orange to orange-red *(2:)* 5

4: Medulla P- 8

5 Medulla K+ yellow or yellow then red; stictic or norstictic acids present *(4)* 6

5: Medulla K-; protocetraric acid present 7

6 Lobes 2–3 mm wide; medulla K+ yellow then red; norstictic, stictic and constictic acids present *(5)* ..... **7. C. norsticticata**

6: Lobes 3–6 mm wide; medulla K+ yellow; stictic and constictic acids present, norstictic acid absent ..... **3. C. crozalsiana**

7 Lower medulla partly orange-brown *(5:)* ..... **4. C. herveyensis**

7: Medulla white throughout ..... **11. C. raunkiaeri**

8 Lower surface pale tan; medulla C+ red; lecanoric acid present *(4:)* ..... **15. C. whinrayi**

8: Lower surface black; medulla C-; lecanoric acid absent 9

9 Medulla KC+ rose; glomelliferic and perlatolic acids present *(8:)* ..... **1. C. aptata**

9: Medulla KC-; divaricatic acid present ..... **14. C. texana**

10 Lower medulla deep yellow *(1:)* ..... **2. C. corrugativa**

10: Medulla white or buff throughout 11

11 Medulla C+ red; lecanoric acid present *(10:)* 12

11: Medulla C-; lecanoric acid absent 14

12 Lower surface ivory to pale brown *(11)* ..... **12. C. subarida**

12: Lower surface black 13

13 Apothecial disc densely white pruinose *(12:)* ..... **9. C. pruinata**

13: Apothecial disc epruinose ..... **6. C. norpruinata**

14 Ascospores 16–20 µm long; scabrosins present; medulla buff *(11:)* ..... **5. C. macrospora**

14: Ascospores 12–14 µm long; scabrosins absent; medulla white ..... **13. C. subtiliacea**