

Caloboletus Vizzini, gen.nov.

IF550546

Basidiomes stipitate-pileate with tubular hymenophore. Pileus usually pale, whitish to smoke-grey, clay-buff, often with ochraceous/olivaceous tinges, rarely with red tinges, gradually darkening, not turning blue when bruised. Tubes and pores at first lemon-yellow to sulphur-yellow (but pores are orange to red in *Caloboletus firmus*), then olivaceous, blue when injured. Stipe central, pale yellow to yellow, with or without red tinges, usually reticulated, reticulum sometimes reduced or even absent. Context whitish to pale lemon-yellow, sometimes with red tinges at stipe base, gradually changing to blue when cut. Taste bitter (presence of cyclocalopins), fading with age. Spores boletoid, smooth. Hymenophoral trama bilateral-divergent of the *Boletus*-subtype. Clamp connections absent.

Holotype: *Boletus calopus* Pers. 1801.

Comment: The genus corresponds quite well to the section *Calopodes* Fr. emend. Lannoy & Estadès of the genus *Boletus* L. The bitter taste is caused mainly by the presence of cyclocalopins (Hellwig et al., *European Journal of Organic Chemistry* 2002: 2895-2904). According to the phylogenetic analyses by Binder & Hibbett 2006 (*Mycologia* 98: 971-981), Gelardi et al. 2013 (*Sydowia* 65: 45-57), Nuhn et al. 2013 (*Fungal Biology* 117: 479-511) and Wu et al. 2014 (*Fungal Diversity*, DOI 10.1007/s13225-014-0283-8) the species of section *Calopodes* represent a new genus in the *Boletaceae*.

Etymology: *caloboletus* (the Greek word *calos* means beautiful, nice) refers to the beautiful red tinges of the stipe typical of many species in the genus.

Caloboletus calopus (Pers.) Vizzini, comb.nov.

IF550547

Basionym: *Boletus calopus* Pers., *Syn. meth. fung.* (Göttingen) 2: 513 (1801)

Caloboletus conifericola Vizzini, nom.nov.

IF550555

Replaced synonym: *Boletus coniferarum* E.A. Dick & Snell, *Mycologia* 60(6): 1205 (1969) [1968].

Competing synonym: *Boletus coniferarum* Lebedeva, *Opredelitel' shlyapochnykh gribov*: 508 (1949)

Caloboletus firmus (Frost) Vizzini, comb.nov.

IF550550

Basionym: *Boletus firmus* Frost, *Bull. Buffalo Soc. nat. Sci.* 2: 103 (1874) [1874-1875]

Caloboletus inedulis (Murrill) Vizzini, comb.nov.

IF550549

Basionym: *Ceriumyces inedulis* Murrill, *Mycologia* 30(5): 523 (1938)

Caloboletus kluzakii (Šutara & Špinar) Vizzini, comb.nov.

IF550565

Basionym: *Boletus kluzakii* Šutara & Špinar, *Czech Mycol.* 58(1-2): 32 (2006)

Caloboletus panniformis (Taneyama & Har. Takah.) Vizzini, comb.nov.

IF550554

Basionym: *Boletus panniformis* Taneyama & Har. Takah., *Mycoscience* 54: 459 (2013)

Caloboletus peckii (Frost) Vizzini, comb.nov.

IF550551

Basionym: *Boletus peckii* Frost, *Rep. (Ann.) N.Y. St. Mus. nat. Hist.* 29: 45 (1878)

Caloboletus polygonius (A.E. Hills & Vassiliades) Vizzini, comb.nov.

IF550564

Basionym: *Boletus polygonius* A.E. Hills & Vassiliades, *Mycologist* 13(4): 159 (1999)

Caloboletus radicans (Pers.) Vizzini, comb.nov.

IF550548

Basionym: *Boletus radicans* Pers., *Syn. meth. fung.* (Göttingen) 2: 507 (1801)

Caloboletus roseipes (Bessette, Both & A.R. Bessette) Vizzini, comb.nov.

IF550553

Basionym: *Boletus roseipes* Bessette, Both & A.R. Bessette, in Bessette, Roody & Bessette, *North American Boletes A Color Guide to the Fleshly Pored Mushrooms* (Syracuse): 149 (2000)

Caloboletus rubripes (Thiers) Vizzini, comb.nov.

IF550552

Basionym: *Boletus rubripes* Thiers, *Mycologia* **57**(4): 532 (1965)