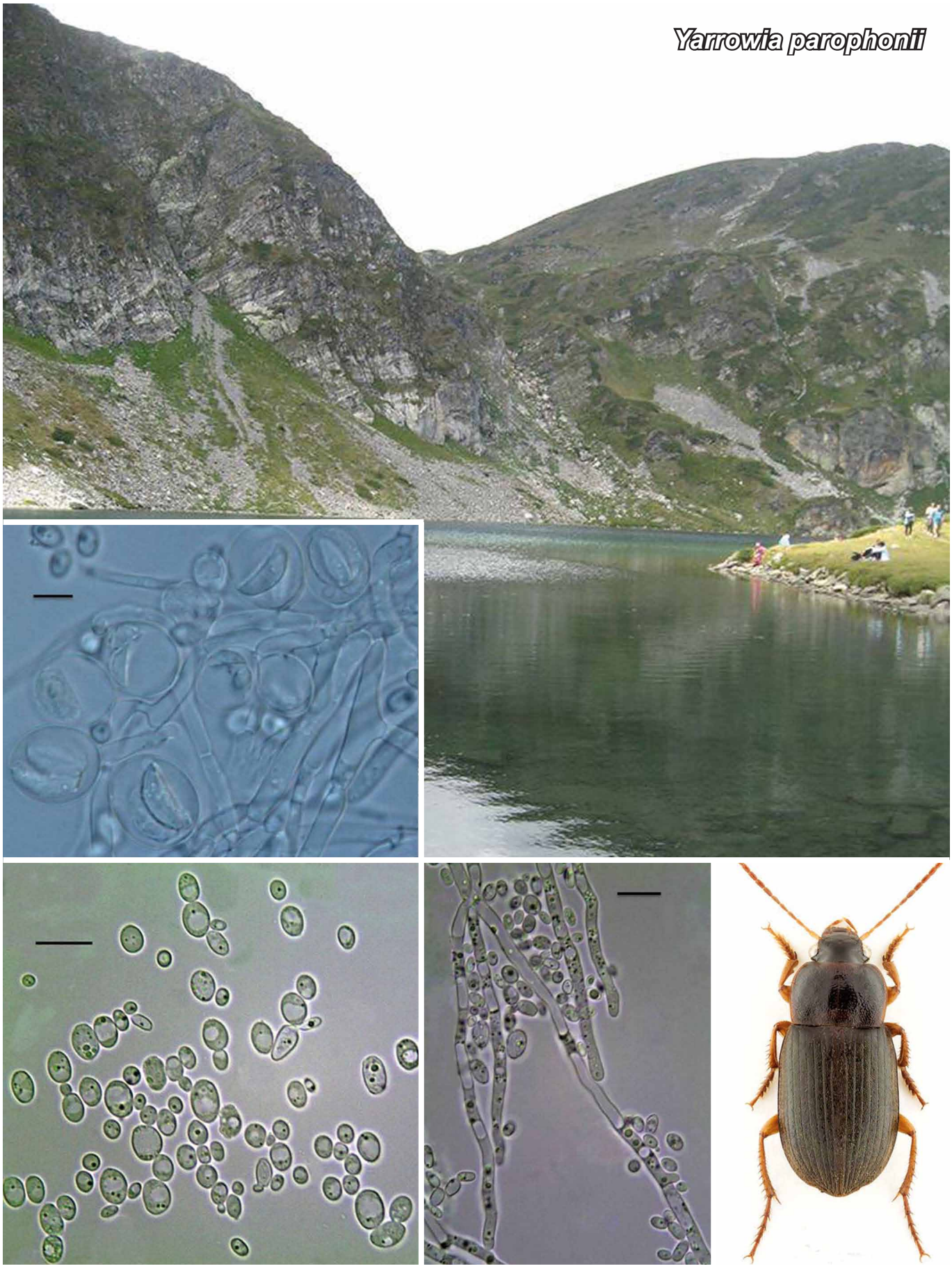
Yarrowia parophonii

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Yarrowia parophonii Gouliamova, R.A. Dimitrov, Guéorguiev, M.T. Sm., & M. Groenew., *sp. nov.*

Etymology. Named after the insect host *Parophonus hirsutulus* from which the ex-type strain was isolated.

Classification — *Dipodascaceae*, *Saccharomycetales*, *Saccharomycetes.*

After 5 d at 25 °C in yeast malt extract (YM) broth, cells are ovoid to globose, 2–6 × 3–9 µm in size. Vegetative reproduction is by multilateral budding. On glucose peptone yeast extract agar (GPYA) and 5 % malt agar (MA) after 7 d at 25 °C streak colonies are cream, butyrous, smooth, convex and with an entire margin. True hyphae are formed. After 1–2 wk of incubation at 25 °C 1–2 hat-shaped ascospores were observed on YM agar medium (Yarrow 1998). For full physiological test results see MycoBank MB819716.

Typus. Bulgaria, from the gut of *Parophonus hirsutulus* (*Carabidae*), 9 Aug. 2009, *D. Gouliamova* (holotype D189, ex-type cultures NBIMCC 8889 = CBS 12427 preserved in metabolically inactive state, D1/D2 domains of LSU rDNA and ITS (ITS1+2) sequences in GenBank JQ026370.2, JQ026371.2, MycoBank MB819716).

Additional materials examined. Bulgaria, from the gut of *Parophonus hirsutulus* (*Carabidae*), 9 Aug. 2009, *D. Gouliamova*, 83Y (NBIMCC 8888 = CBS 12462), 25L (NBIMCC 8900 = CBS 12468), 30L (NBIMCC 8902 = CBS 12466), BH1 (NBIMCC 9804 = CBS 12471), KL1 (NBIMCC 8903 = CBS 12465) and 29L (NBIMCC 8901 = CBS 12441), LSU sequences GenBank KC810944, KY457253–KY457257; ITS sequences GenBank KC810951, KY457248–KY457252, respectively.

Notes — The phylogenetic analysis of the combined ITS and LSU rDNA sequence alignment showed that the ex-type strain clusters with *C. oslonensis* (96 % identity; 679 conserved nt., 1 subst., 1 gap in ITS region; 16 subst. in LSU rDNA). The additional strains examined show 100 % sequence similarity to one another, with exception of strains 25L and BH1 which showed 99 % similarity in ITS (3 nt. subst.). The new strains, D189, 83Y, 25l, 30L and KL1 can be distinguished from *C. oslonensis* (CBS 10146T) based on assimilation profiles of twelve compounds (details in MycoBank MB819716). The strains are able to assimilate D-ribose (+/w/-), D-mannitol (+/w/-), gentobiose (+/w/-), Tween 40 (w), creatine (w) and can grow without vitamins (w), biotine and thiamine, pyridoxine and thiamine. The strains cannot assimilate L-sorbose, salicin and D-glucono 1.5 lactone. Hydrolysis of arbutin is negative. The strains were provisionally labelled mating type + (29L, 30L, KL1, 83Y, D189) and mating type – (25L, BH1) (Wickerham et al. 1970, Knutsen et al. 2007, Groenewald & Smith 2013). Based on our results we propose new combinations in the genus *Yarrowia* for the following *Candida* species.

Yarrowia galli (G. Péter et al.) Gouliamova, R.A. Dimitrov, M.T. Sm. & M. Groenew., *comb. nov.* — MycoBank MB819717

Basionym. Candida galli G. Péter et al., Antonie Van Leeuwenhoek 86: 107. 2004.

Colour illustrations. The Kidney Lake in Rila mountains, Bulgaria; *Parophonus hirsutulus* (photo credit Aleš Sedláček, http://www.hmyzfoto.cz); morphology of cells; true hyphae of *Y. paraphonii* D189^T in YM broth (scale bars = 10 µm); cluster of asci, some with hat-shaped ascospores formed in crosses between strains D189T and 25L (scale bar = 5 µm).

Yarrowia oslonensis (Knutsen et al.) Gouliamova, R.A. Dimitrov, M.T. Sm., & M. Groenew., *comb. nov.* — MycoBank MB819718

Basionym. Candida osloniensis Knutsen et al., Int. J. Syst. Evol. Microbiol. 57: 2426. 2007.

Yarrowia alimentaria (Knutsen et al.) Gouliamova, R.A. Dimitrov, M.T. Sm., & M. Groenew., *comb. nov.* — MycoBank MB819719

Basionym. Candida alimentaria Knutsen et al., Int. J. Syst. Evol. Microbiol. 57: 2426. 2007.

Yarrowia hollandica (Knutsen et al.) Gouliamova, R.A. Dimitrov, M.T. Sm., & M. Groenew., *comb. nov.* — MycoBank MB819720

Basionym. Candida hollandica Knutsen et al., Int. J. Syst. Evol. Microbiol. 57: 2426. 2007.

Yarrowia phangngaensis (Limtong et al.) Gouliamova, R.A. Dimitrov, M.T. Sm., & M. Groenew., *comb. nov.* — MycoBank MB819721

Basionym. Candida phangngensis Limtong et al., Int. J. Syst. Evol. Microbiol. 58: 515. 2008.

Phylogenetic analysis of the combined ITS and LSU rDNA sequences of *Yarrowia paraphonii* D189^T and related species using a neighbour-joining analysis (Kimura two-parameter model; MEGA v. 6).

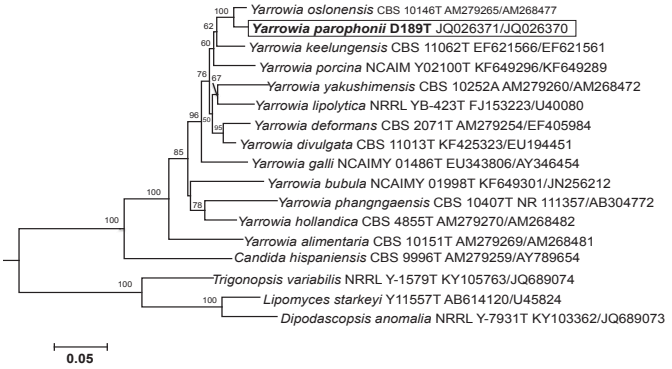
The following combinations were invalidly published, citing the MycoBank number of the basionym for the new combination (Crous et al. 2016b), and are herewith validated:

Priceomyces fermenticarens (Van der Walt & Baker) Gouliamova, R.A. Dimitrov, M.T. Sm., M.M. Stoilova-Disheva & M. Groenew., *comb. nov*. — MycoBank MB818692

Basionym. Candida fermenticarens Van der Walt & Baker, Bothalia 12: 561. 1978.

Priceomyces northwykensis (R.S. Rao et al.) Gouliamova, R.A. Dimitrov, M.T. Sm., M.M. Stoilova-Disheva & M. Groenew., *comb. nov*. — MycoBank MB818693

Basionym. Candida northwykensis R.S. Rao et al., Curr. Microbiol. 63: 115. 2011.



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