

## Outlineoffungi.org - Note 816 [Eriomyces](#)

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### [Eriomyces](#) Karpov & Reñé

Karpov et al (2021) introduced [Eriomyces](#) as a monotypic genus based on [Eriomyces syringoforeus](#) Karpov & Reñé as the type species. [Eriomyces syringoforeus](#) was isolated as a parasite on *Kryptoperidinium foliaceum*, from brackish water in Finland. This genus was placed in *Eriomycetaceae*, *Rhizophydiales*. [Eriomyces](#) Karpov & Reñé is well-separated from other genera in the *Rhizophydiales* based on light microscopic morphology, ultrastructure, and analysis of 18S rDNA, 28S rDNA, and ITS sequence data. Molecular analyses placed the genus on a long branch sister to the *Globomycetaceae* in the *Rhizophydiales*. [Eriomyces](#) is the only genus in the family *Eriomycetaceae* (Karpov et al.2021). The type habitat is a shallow coastal embayment with a salinity of 6-7 ‰. [E. syringoforeus](#) grew in dual culture with its dinoflagellate host. Important morphological features include a swollen haustorium inside the host rather than rhizoids and the development of the sporangium from the side of the zoospore cyst. The cyst enlarges only slightly and remains basal (referred to by the authors as a papilla), on the spine-covered sporangium. Zoospore discharge takes place through a single, inoperculate pore. visible by transmission electron microscopy and unique to this genus are a penetration device called a “syringe”, and a “funnel” that connected the external spiny, inoperculate sporangium to the haustorium inside the algal cell. The ultrastructure of zoospores revealed typical characteristics for a member of the *Rhizophydiales*. This is the second chytrid known to parasitize dinoflagellates in brackish water.

### Reference

Karpov SA, Reñé A, Vishnyakov AE, Seto K, Alacid E, Paloheimo A, Kagami, M, Kremp A, Garcés E. 2021– Parasitoid chytridiomycete *Eriomyces syringoforeus* gen. et sp. nov. has unique cellular structures to infect the host. *Mycological Progress* 20,95– 109. <https://doi.org/10.1007/s11557-020-01652-x>

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