

KEY TO THE FAMILIES OF THE *HYPOCREALES*

1. Ascomata dark brown to black, soft-textured, generally solitary; anamorphs *Acremonium*, *Monocillium*, *Stachybotrys*, or unknown **Niessliaceae**
(see Samuels & Barr, 1997, and excluded genera)
1. Ascomata hyaline to light- or bright-colored, rarely brown or appearing black but internally bright-colored, soft-textured, solitary or aggregated; anamorphs generally phialidic, including *Acremonium* **2**
2. Ascospores filiform, multiseptate, usually disarticulating within the ascus, rarely dark-green and long-fusiform (*Cordycepioideus*); ascal apex usually thickened, penetrated by a narrow pore; on living grasses, insects or fungi **Clavicipitaceae**
(see excluded genera)
2. Ascospores globose, ellipsoid to long-fusiform, never truly filiform, disarticulating or not; ascal apex usually not distinctly thickened, rather with an apical ring or simple; on all kinds of substrata, rarely on living grasses **3**
3. Ascospores generally disarticulating; ascomata generally immersed in a stroma; if ascospores non-disarticulating, then ascal apex often thickened and ascomata immersed in a thin to cottony subiculum on fleshy, leathery, or woody basidiocarps; if ascomata superficial, then on a thin, compact stroma on *Aphylliphorales*, rarely subiculum absent and having a *Gliocladium* anamorph (*Sphaerostilbella*); or with transversely striate ascospores (*Rogersonia*) **Hypocreaceae**, page 80
3. Ascospores not disarticulating (except in two species of *Haematonectria*); ascomata superficial on substratum, subiculum or stroma, or ascomata immersed in substratum or in an immersed stroma **4**
4. Ascomata white, pale yellow to orange or brown, not reacting in KOH or lactic acid; ascomata superficial on the substratum or stroma, or immersed in a hyphal to well-developed stroma **Bionectriaceae**, page 15
4. Ascomata generally red to purple, reacting in KOH and lactic acid; if ascomata white to pale yellow, then having a *Fusarium* anamorph (*Albonectria*); ascomata superficial on the substratum or stroma, rarely immersed in lichen thalli (*Xenonectriella*) **Nectriaceae**, page 102