

A NEW SPECIES OF SPOROTHRIX FROM KUWAIT

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During an ecological study of fungi of the tidal mudflats in Kuwait, a *Sporothrix* species has been recorded twice, in 1977 and 1980. It differs from other species of the genus (de Hoog, 1974, 1978) in several characters and is here described as a new species. A comparison with similar species of the genus is added.

***Sporothrix ranii* Moustafa, *spec. nov.*—Fig. 1**

Coloniae in agar maltoso 25 °C post 7 dies ad 25 mm diam., lanosae ad funiculosae, albae; reversum dilute flavum; exsudatum et odor absunt. Hyphae submersae hyalinae, leves, irregulariter ramosae, 1.5–3.0 µm latae, nonnumquam 3–9 µm latae et in singulas cellulas secedentes; hyphae aerae fragiles, singulae vel fasciculatae, leves, 2.0–3.5 µm latae. Cellulae conidiogenae in mycelio aereo sparsae, terminales vel laterales ex hyphis indistinctis singulis vel fasciculatis plus minusve erectis orthotropice oriundae, rectae vel modice curvatae, cylindricae, sursum paulo angustatae, vulgo 30–60 µm longae;

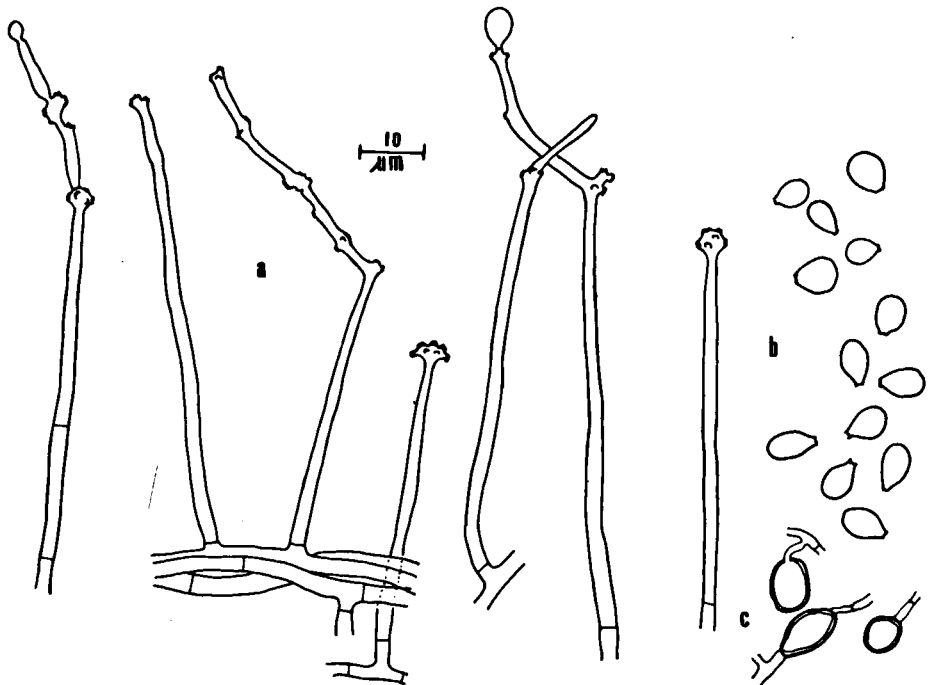


Fig. 1. *Sporothrix ranii*, CBS 119.81. — a. Conidiogenous cells. — b. Conidia. — c. Chlamydsopores.

apices plerumque inflati, ad 8 cicatricibus paulo prominentibus praediti, sed saepe latitudine indistincti, geniculati-denticulati, saepe sympodialiter multo elongati et novos capitulos conidiorum formantes, aspectu irregulariter nodoso, saepe huc et illuc flexi, longitudine variabiles. Conidia in successione sympodiali formata, hyalina, levia, obovata ad ellipsoidea, (4.5-)5.5-7.5(-8.5) × (3.5-)4.5-5.5(-6.5) μm, cicatrice basilari prominente 1 μm lata. Chlamydosporae intercalares subglobosae ad ellipsoideae, hyalinae, crassitunicatae, 11-15 × 8-13 μm. Teleomorphosis ignota.

Typus: CBS 119.81 isolatus e sedimento lutoso supra marinorum aestuum recessum in Kuwait.

Colonies on malt agar at 25 °C attaining a diameter of 25 mm in 7 days, appearing lanose to funiculose, white. Reverse pale yellow; exudate and odour absent. Submerged hyphae hyaline, smooth, irregularly branched, 1.5-3.0 μm wide, intermingled with straight hyphae 3-9 μm wide which occasionally disarticulate into separate cells; aerial hyphae mostly fertile, fragile, loose or in tufts, smooth, 2.0-3.5 μm wide. *Conidiogenous cells* scattered in the aerial mycelium, arising terminally and laterally from suberect hyphae or hyphal fascicles, with usually orthotropic branching; conidiogenous cells straight or slightly curved, cylindrical, tapering gradually towards the tip, 30-60 μm long, in a later stage often with 1(-2) thin septa; apex usually inflated, with up to 8 slightly prominent scars about 1 μm wide. The head often proliferates to form new clusters of conidia, leading to an irregularly nodose, often sharply bent conidiiferous rachis of variable length. *Conidia* arising by sympodial growth, rarely produced from intercalary clusters of denticles, hyaline, smooth, obovate to ellipsoidal, (4.5-)5.5-7.5(-8.5) × (3.5-)4.5-5.5(-6.5) μm; basal scar prominent, about 1 μm wide. *Chlamydospores* intercalary, thick-walled, hyaline, subglobose to ellipsoidal, 11-15 × 8-13 μm sometimes present in the submerged mycelium. *Teleomorph* unknown.

TYPE.—CBS 119.81 (living and dried), isolated from tidal salt marsh, Kuwait.

ETYMOLOGY.—The name is dedicated to my daughter Rani.

TABLE I. Characteristics of some species of *Sporothrix* related to *S. ranii*

	<i>S. ranii</i>	<i>S. ramosissima</i>	<i>S. foliorum</i>	<i>S. schenckii</i>
colony appearance	funiculose	funiculose	compact, farinose	lanose or moist
ramification	orthotropic	dichotomous	plagiotropic	irregular
secondary conidia	absent	absent	absent	often present
conidial shape	obovoidal to ellipsoidal	obovoidal to ellipsoidal	subglobose to obovoidal	guttuliform to fusiform
conidial size	5.5-7.5 × 4.5-5.5 μm	5.5-6.5 × 2.8-4.3 μm	2.8-3.5 × 2.0-2.6 μm	2.5-5.5(-8.0) × 1.3-2.5(-3.0) μm
conidial scars	prominent, c. 1 μm wide	prominent, c. 1 μm wide	flat, c. 0.5 μm wide	inconspicuous

Growth and sporulation were found to be optimal on oatmeal and Czapek's +0.5% yeast extract agars. On the latter medium the colony attained 40 mm diam. in 7 days. The yellow pigmentation of the colony reverse was most intense on malt extract agar.

Sporothrix ranii is similar to *S. ramosissima* Arn. ex Hoog in the shape and size of the conidia and conidium-bearing denticles. The conidiogenous cells of *S. ramosissima*, however, show a peculiar dichotomous branching (de Hoog, 1974). In addition, the fertile hyphae of *S. ranii* may occur in suberect fascicles, and the conidiiferous apices often proliferate to form irregularly nodose or geniculate rachids. The species also resembles *S. vizei* (Berk. & Br.) Hoog, which however differs by septate conidia. The salient characteristics of some related *Sporothrix* species are summarized in Table 1.

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REFERENCES

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