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RUST FUNGI FROM SOCOTRA AND ABD-AL-KURI

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ABSTRACT. Six rust fungi (Uredinales) are reported from the islands of Socotra and Abd-al-Kuri.

To my knowledge only two rust species are published from the island of Socotra, formerly part of the Sultanate of Kishin within the British Aden Protectorate, now part of the People's Democratic Republic of Yemen (earlier Southern Yemen). Socotra is famous for its rich endemic flora but its fungi are as yet poorly known. H. & P. Sydow (1903) described *Uredo socotrae* on *Cassia sophorae* from Kischen in Socotra, and Forbes (1903) listed *Uromyces commelinae* Cooke on *Commelina* sp. from the same island.

In this paper six rust species are recorded, one from Abd-al-Kuri and five from Socotra, four of which are new to this island.

The material is preserved in the herbarium of the Royal Botanic Gardens in Kew (K). I am indebted to the Director of the herbarium for allowing me to examine the material, and to Dr R. W. G. Dennis for information on literature.

Puccinia aristidae Tracy var. **chaetariae** Cumm. & Husain in Bull. Torrey Bot. Club 93:63 (1966).
On *Aristida adscensionis* L.
SOCOTRA. Keregnigiti, v 1881, *G. Schweinfurth,* II+III (det. R. W. G. Dennis).

P. aristidae is divided into two varieties, var. *aristidae* and var. *chaetariae*; the latter, for which *A. adscensionis* is the type host, was described from Arizona, USA. In most cases the rust has been reported only as *P. aristidae,* but Cummins (1971) gives the distribution of the former variety as from N Africa through the Transcaspian region to Afghanistan, while var. *chaetariae* is known from India and Pakistan, and from the continents of Africa and the Americas. On the present host it has been reported from Mexico, Bolivia, Peru, Sudan, Kenya, Pakistan and India.

P. aristidae var. *chaetariae* occurs also on other species of *Aristida* as well as species of *Hilaria* and *Tridens.*

Puccinia eritraeensis Paz. in Bot. Jahrb. 17:14 (1893).
On *Hyparrhenia hirta* (L.) Stapf.
SOCOTRA. Hagghier Mountains, 18 iv 1967, *A. R. Smith & J. Lavranos* 414, II+III.

On *H. hirta* this rust has been reported only from Spain (Mallorca),

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Ethiopia (Eritrea) and Kenya. On other hosts, including several species of *Hyparrhenia, Andropogon* and other genera, it has been reported from many countries in Africa, and also from China, Australia and Honduras. Two other rust species *P. andropogonis-hirti* Beltrán and *P. hyparrheniicola* Jørst. & Cumm. occur on the same host. When only uredinia are present, they can hardly be separated.

Puccinia heterospora Berk. & Curt. in J. Linn. Soc., Bot. 10:356 (1868).
On *Sida urens* L.
SOCOTRA. Wadi Digal, 200m, 23 iv 1881, *G. Schweinfurth* 491, III.

P. heterospora is widespread in warmer areas in Africa, Asia, Australia and the Americas. On *S. urens* it is reported from several African countries, from the Caribbean and from S America, but not from Asia. As usual most spores were of the one-celled type.

Puccinia lycii Kalchbr. in Grevillea 11:21 (1881).
On *Lycium* sp.
ABD-AL-KURI. Jebel Hassala, 570m, 7 v 1967, *A. R. Smith & Lavranos* 689, II+III.

This seems to be the first record of a rust from this island. Only a few records of this rust are known to me. It has been reported from South Africa, Israel and Syria, occurring on several *Lycium* spp. Two records of *P. lycii* on *L. halimifolium* Mill. from USA (Martin, 1921; Nel, 1942) might be an error for *P. tumidipes* Peck.

Uredo socotrae H. & P. Sydow in Ann. Mycol. 1:332 (1903).
On *Cassia sophora* L.
SOCOTRA. Ras Hazira, 225m, 30 iv 1967, *A. R. Smith & J. Lavranos* 588, II.

As mentioned earlier this rust was described on the same host from Socotra. The Sydows (1903) also mentioned a similar rust on this plant 'aus Ostindien', and it has subsequently been positively recorded from the Philippines on *C. sophora* and *C. occidentalis* L. as well as on *C. biflora* L. from Malaya and *C. corymbosa* Lam. from Sri Lanka.

Uromyces bidenticola Arthur in Mycologia 9:71 (1917).
On *Bidens pilosa* L.
SOCOTRA. 18 v 1967, *A. R. Smith & Lavranos* 412, II.

This rust is widespread in tropical and subtropical areas, mainly in the uredineal stage. Outside the Americas, telia are reported only from Cape Verde Islands, Madagascar, India and Japan (Gjærum, 1985). In the Americas the microform *Uromyces bidentis* Lagh. occurs on the same host.

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