ear type segregated independently of genes controlling white kernel colour and awnless condition.

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A NEW CHROMOSOME RACE IN *HETEROPOGON CONTORTUS*

Heteropogon contortus Roem and Schult, a member of the tribe Andropogoneæ of the family Gramineæ, is well represented in the tropics and sub-tropics of both the new and old world flora. It is used commonly as a fodder plant. Chromosome races in this species are known to occur as $n = 10$,[1] $n = 20$,[2] $n = 22$ [3] and $n = 30$[4]. Besides these, variable chromosome numbers are also reported[5] in this species. During the course of present investigation in the Gangetic plains of Bihar and U.P. (India), a new chromosome race $n = 25$ was found. This race is not very common and so far only few plants have been collected.

Polymorphism in *H. contortus* is quite conspicuous but the variations at the different ploidy levels or of the chromosome races have not been studied. Hence an effort is made to present in Table I the morphological characteristics of the new race ($n = 25$).

Cytologically these plants were very irregular during the meiotic division consisting principally of univalents and multivalents at diakinesis and metaphase I; bridges, fragments, and lagging chromosomes at anaphase; and micronuclei at the diad and tetrad spore stage.

TABLE I

Morphological characters of an intraspecific race ($n = 25$) *in* H. contortus

Characters studied		Observations
Growth habit	..	Decumbent
Flowering period	..	October February/March
Culm length	..	200–500 mm (400 mm.)*
Leaf length	..	30–100 mm. (61 mm.)
Leaf breadth	..	2·5–5·5 mm. (3·9 mm.)
Epidermal cells (length)	..	60·5–95·6 (82·3 μ)
,, (breadth)		15·4 32·4 (23·5 μ)
Stomatal breadth	..	21·8 46·3 (30·6 μ)
Spike length (with awn)	..	90–120 mm.
Awn length	..	67–90 mm. (79 mm.)
No. heterogamous pairs-spike		7–10 (9·1)
No. homogamous pairs-spike		1–8 (4·3)
Total No. of spikelets-spike		11-17 (13·4)
Length-breadth of lower glume of sessile spikelet		6·5/1·5 to 8·2/1·9 (7·5/1·7)
Pollen grain (diameter)	..	32·9–39·95 (36·66 μ)
Seed weight	..	81·5 mg. (1·63 mg.) (50 seeds) (per seed)

* Average values within parenthesis.

Morphologically the tetraploid plants differ conspicuously from the pentaploid race. However, the differences between the latter and the hexaploid race were very little except for some minor details. This could explain one of the difficulties in their ($n = 25$) proper identification and collections. An assumption is made for the hybrid origin of the pentaploid race from the possible crosses between the tetraploid and hexaploid races. Thus once such plants are produced and obtain selective advantage, they are able to perpetuate in nature with the help of apomixis which is quite prevalent in this species.

A detailed comparative morphological study of the different chromosome races in *H. contortus* is in progress and shall be reported later.

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HYSTERIUM INDICUM SP. NOV. FROM INDIA

In the course of his survey for ascomycetous fungi the writer collected dead twigs of *Galphimia glauca* Cav. (Family—Malpighiaceæ) at the University campus, Poona (India), showing numerous carbonaceous elongated fruiting bodies with a central whitish slit characteristic of the family Phacediaceæ. Sections through these bodies revealed the presence of stromatic, cup-shaped apothecia with parallel asci intermingled with numerous bifurcated paraphyses forming a thin epithecial covering above. On the basis of structure and ascospore characters the fungus was determined as a species of *Hysterium* Tode, ex Fries. Although according to Saccardo a little over 100 species of this interesting apothecial genus have been described from all over the world since it was first established by Tode (1790), only one record of this genus is known from India (Tilak, 1963). A doubtful species, *Hysterium foliicolum* Fr. was collected from the Nilgiris (S. India), which has, since, been placed as a synonym of *Lophodermium hystereoides* (Pers.) Sacc. (Vasudeva, 1960, p. 74).

This interesting but rare fungus has been represented by a single species on *Janusia argentea* Griseb., of the family Malpighiaceæ, *viz.*, *Hysterium januseæ* Rehm. (Saccardo, 1902). A critical comparison was, therefore, made between the writer's collection which is also made on a new host belonging to this host family and *Hysterium januseæ* Rehm. with the results shown in Table I.

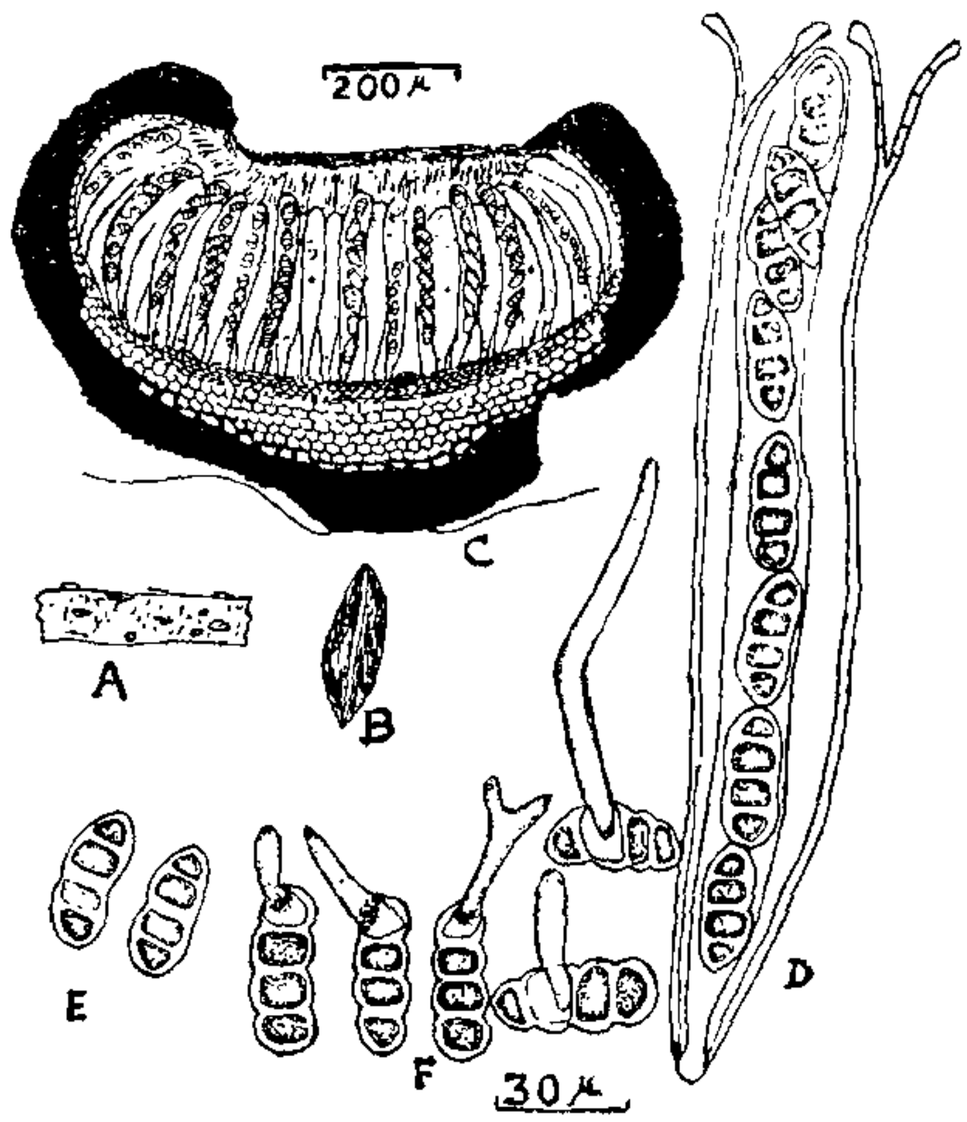

FIG. 1 A. Habit. B, Fruit body. C, Ascocarp in section. D, Ascus with bifurcated paraphyses. E, Ascospores. F,. Germination of ascospores.

Unfortunately, *H. januseæ* Rehm. is incompletely described specially in respect of ascocarp characters, making comparison difficult. However, from the data available, Indian collection of *Hysterium* is not only considered distinct from *H. januseæ* Rehm. in respect of habit and morphological characters having bigger ascospores but has been collected on a hitherto unreported host and is, therefore, offered as a new species with Latin diagnosis as follows:

Hysterium indicum SESHADRI SPEC. NOV.

Stromata carbonacea, dispersa, erumpentia, elongata ornata scissura longitudinali (1–2 mm.), ad maturitatem evadentia cymbiformia. Apothecia stromatica, uni-loculata, copulata labiis curvis, parietibus crassis, late ostiolata, 210–800 × 122·5–250 μ. Ordo stromaticus carbonaceus, ad

TABLE I

Species	Stroma	Ascocarp	Asci	Ascospores
H. januseæ Rehm.	Sessile, elongated, glabrous, longitudinul rings curved 2×0·5–0·75 mm.	Gregarious, paraphyses, branched	Clavate, 150–190×15 μ.	3-septate, rod-shaped, 21–25×9–10 μ
H. species (Indian)	Sessile, glabrous with a longitudinal slit 1–2 mm.	Isolated, cup-like, with curved lips paraphyses bifurcated at apex with epithecium above, 210–800×122·5–250	Cylindrical 122–224× 14·8 μ.	3-septate, elliptical, dark brown, 26–28×9·25–11·0 μ.

medium, crassior (65·0 μ), ad latera angustior (18·5 μ). Hypothecium pallide luteum, constans cellulis polygonalibus, 88·0 μ ad medium, 38·5 μ ad latera. Asci paralleli in seriebus basalibus, cylindrici, parietibus tenuibus, octospori; paraphysati, apparatu apicali nullo, 122·0–224 × 14·8 μ. Paraphyses ascis intermixtæ, tenues, hyalinæ, in parte basali non-septatæ, supra cero