



haustorium

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CACTI AS PARASITES? It has long been known that cacti will very rarely grow on cacti or other desert plants in the American Southwest as first noted by MacDougal in 1911. Kuijt (1969) discusses these few reports and a case of *Opuntia on Idria* in Baja California, Mexico. Reid and Krappa (1983) reported instances of *Opuntia* on *Juniperus deppeana* in West Texas and *Echinocereus* on the same tree in southern New Mexico. In both instances the cacti were growing in decayed wood as epiphytes. Recently, an introduced *Opuntia* has been reported on several trees in India (Pande and Joshi, 1986). *Opuntia elatior* was found growing on *Aesculus*, *Lagerstroemia*, *Pinus*, *Sapium*, and *Toona*. The physiological status of these associations has not been adequately established. MacDougal considered that a parasitic relationship existed because, in at least one case, roots of *Opuntia* were established within living tissue of *Cereus gigantea*. In most cases, however, the cacti seem to become established in cavities in the "host" tree, and the relationship is more akin to epiphytes than parasitism.

Detailed analyses of these relationships are a fertile field for investigation, particularly in light of the possibility that parasitism in plants may have begun from such chance encounters (Kuijt, 1969).

Frank G Hawksworth, U.S. Forest Service, Fort Collins, CO, USA

PARASITE SYMPOSIUM AT XIV BOTANICAL CONGRESS A special symposium was held as part of the congress in West Berlin the

last week of July. In addition to this symposium there were many other papers dealing with parasitic vascular plants scattered in different symposia. Summaries of all the presentations are contained in the published abstracts.

FOURTH SYMPOSIUM ON PARASITES A HUGE SUCCESS! The largest and, according to many "old hands", the finest symposium on parasitic plants

was held the first week of August at Philipps University in Marburg, West Germany. A great diversity of papers were presented and most of them are contained in the published proceedings which was made available to participants upon arrival at the symposium. This book, with more than 800 pages, attractively produced on glossy paper, will be required reading for anyone involved in parasitic plants. Very few copies remain and we have been advised that those wishing to order must do so immediately! To obtain a copy send a check or money order payable to "Fourth IPSP Symposium" for DM 120 payable in Deutschmarks to: Prof. Hans Christian Weber, Fachbereich Biologie, Philipps University, Marburg West Germany. Price includes air mail.

The excellent mix of basic and applied papers, a diversity of parasites from exotic to common, rarities to weeds (but where was *Cassytha*?) as well as a breadth of disciplines including biochemistry, old fashioned taxonomy, new fangled taxonomy, control, ultrastructure, etc, etc all contributed to make the scientific content invaluable. In addition, the well planned and sometimes elegant social functions added to the value despite the unseasonable soggy weather. The occasion of the symposium was used as an opportunity to open a greenhouse devoted to parasitic plants—perhaps the only such in the world! About 150 were in attendance representing all parts of the world. From all who participated, hearty thanks to Hans Christian and his crew for organizing and sponsoring the whole affair not only with German efficiency but with warm gemutlichkeit!

FIFTH SYMPOSIUM ON PARASITIC PLANTS The fourth symposium will be a hard act to follow but it is important to begin thinking about our next meeting. It is apparently the general consensus that the next meeting should be in southern Africa. Botswana and Zimbabwe have been suggested as venues for the meeting, probably to be held in 1990. If you have any suggestions and/or are willing to help organize such a meeting, please contact one of the editors.

For the uninitiated—the first symposium was in Malta in 1973, the second in Raleigh in 1979, and the third in Aleppo in 1984, and the most recent is described above. Published proceedings were prepared for each and if you are interested in obtaining a copy of the first three, please contact the editors of **HAUSTORIUM**.

LITERATURE

du Plessis, N. M. 1986. *Harveya squamosa* in the Cape Flats Nature Reserve. Veld

and Flora 72(1): 16-17. (Deals with the cultivation of this attractive holoparasite. Illustrated in color. This sort of work should encourage others to attempt to grow holoparasites.)

Lee, K. B. 1986. Studies on the haustorial development of *Cuscuta australis* R. Brown. PhD Dissertation, Sung Kyun Kwan University, Korea. (A detailed ultrastructural study in Korean but with an English abstract.) A portion of this is apparently included in the following:

Lee, C. D. and K. B. Lee. 1986. Ultrastructure of haustorial cells of *Cuscuta australis* R. Brown. Korean Society of Electron Microscopy. 16(2): 49-60.

Musselman, L. J. 1986. Parasitic weeds in world agriculture. Volume 1. *Striga*. CRC Press. (A collection of papers on the biology and control of *Striga* species with a section dealing with techniques for field and laboratory investigations).

Axtell, J. D. and J. W. Clark. 1986? Niger sorghum and millet workshop. INTSORMIL, Purdue University. (A collection of papers presented at a workshop in October 1985. At least one paper deals with *Striga*.)

Russo, V. Russo, B., and D. Bissing. 1986. The parasitic interface between *Balanophora indica* and *Cynometra ramiflora*. *Beitrage zur Biologie der Pflanzen* 61: 173-178. (The anatomy of the host-parasite interface using light microscopy.)

Grazi, G. and M. Zemp. 1986. *Genista cinerea* DC., ein natürlicher *sammelwirt* für *Viscum album* L. *ssp. album* und *Viscum album ssp. austriacum* (Wiesb.) Vollmann. *Berichte Deutschen Botanische Gesellschaft* 99: 99-103. (This is the first report of *ssp. austriacum* occurring on a dicot host.)

The authors suggest that, since the biochemistry of the two subspecies of the parasite are different, the differences between the subspecies may be attributable to the influence of the host.)

Leonard, J. 1986. Observations sur le genre *Cynomorium* ¹ en Asie (Cynomoriaceae). Bulletin Jardin Botanique de Belgique 56: 301-304. (The author considers the genus to consist of one species with two subspecies.)

_____. 1987. Contribution a l'etude de la flore et de la vegetation des deserts d'Iran. Fascicule 7. Observations et modifications. Index general. Jardin Botanique National de Belgique, Meise. (In the treatment of the Cynomoriaceae there is a diagram of the inflorescence and flowers of this intriguing parasite as well as photographs showing the plant in its natural setting and illustrating the massive rhizomes of the plant.)

Oliver, I. 1987. Teemohlware-a refreshing bush tea. Veld and Flora 73(1):16. (A very interesting note dealing with the use of *Viscum rotundifolium* leaves as a tea!)

Musselman, L. J. and J. H. Visser. 1987. *Hydnorajohannis* in southern Africa. Dinteria 19: 77-82. (The plant known in Namibia and other parts of southern Africa as *Hydnora solmsiana* is shown to be the same as *Hydnora johannis* which is common in parts of Sudan and Ethiopia and perhaps elsewhere. Reference to *Hydnora angolensis* Decne., also synonymous with *H. johannis* was inadvertently left out of this paper.)

Yohe, J. M., coordinator. 1986. Annual report. Sorghum/millet collaborative research support program. INTSORMIL, University of Nebraska,

Lincoln. (Several papers refer to *Striga*.) Benharrat, H. 1986. Contribution a l'etude de la biologie de phanerogames parasites: Recherche sur *Osyris alba* L. (Santalaceae). University of Nantes, Nantes. (A large PhD dissertation dealing with the structure and physiology of this shrubby root parasite of Mediterranean countries.)

Musselman, L. J. and J. H. Visser. 1986. The strangest plant in the world! Veld and Flora 71: 109-111. (A popular account of *Hydnora africana* and *H. johannis*; illustrated in color.)

Lolas, P. C. 1986. Control of broomrape (*Orobancheramosa*) in tobacco (*Nicotiana tabacum*). Weed Science 34(3): 427-430.

Mesa-Garcia, J. and L. Garcia-Torres. 1986. Effect of planting date on parasitism of bradbean (*Vicia faba*) by crenate broomrape (*Orobanche crenata*). Weed Science 34(4): 544-550.

Bradow, J. M. 1986. Germination promotion in dormant shepherdspurse (*Capsella bursa-pastoris*) seeds by strigol analogs and other stimulants. Weed Science 34(1): 1-7.

Editors note: Because both editors were in the field during the past twelve months, we are somewhat behind on a survey of the literature and have had to truncate our listing in this issue. Please continue to send us material which is not readily abstracted such as reports, theses, etc for inclusion in the next issue scheduled for January 1988.

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