Plant Taxonomy

Chairman: JOHN E. PELTON, Butler University

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ABSTRACTS

Study of a Natural Hybrid Population Among Three Species of *Tragopogon*. A. T. GUARD, Purdue University.—In the spring of 1952 a population of *Tragopogon porrifolius* L., *T. pratensis* L., and *T. dubius* Scop. were found growing on a recent road fill near Lafayette, Indiana. At that time putative hybrids between the various species were observed. These hybrids show much evidence of being F_1 hybrids in that they were intermediate between the parents and highly sterile. Although this was predominantly the case each of the succeeding years, in 1957 there was limited evidence that segregation or back crossing to one of the parent species was evident.

Natural Hybridization of Helianthus Longifolius with H. Atrorubens and H. Occidentalis. DALE M. SMITH, Univ. of Kentucky and WILLIAM C. MARTIN, Indiana University.—A mixed population of diploid perennial sunflowers composed of *Helianthus atrorubens* L., *H. longifolius* Pursh, *H. microcephalus* T.&G., and *H. occidentalis* Riddell was encountered in September, 1957, near Albertville, Alabama. The plants were scattered along a rather steep road embankment composed of sandy clay loam into which a number of large quartzite boulders were mixed. *Helianthus longifolius* was found along the entire extent of the embankment, while *H. occidentalis* and *H. atrorubens* were localized at opposite ends, and *H. microcephalus* grew along the edge of an adjacent woodlot.

One putative hybrid between *H. occidentalis* and *H. longifolius* was found, and no hybrids involving *H. microcephalus* were evident, but a large putative swarm of *H. atrorubens* x *H. longifolius* was present. The putative hybrids showed considerable variation in leaf and phyllary characters, while yellow disc corollas were apparently dominant over the purple-tipped corollas of *H. atrorubens*.

These examples are the first records of hybridization between these species and bring to twenty-four the total number of natural hybrids encountered between diploid species of sunflowers.