

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH SERVICE  
NORTHEASTERN REGION  
Beltsville, Maryland 20705

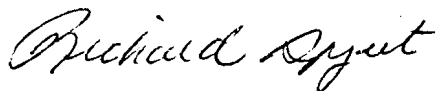
January 31, 1974

Subject: Plant Collections of Hypoxis from Mufindi, Tanzania

To: Robert E. Perdue, Jr., Chief  
Medicinal Plant Resources Laboratory

The seven voucher specimens of Hypoxis are representative of seven segregated groups or species (15-100 plants in each group) from more than 500 plants of Hypoxis spp. collected by the local natives probably within a three mile radius of the Ngwazi House. The characters I used to distinguish the seven groups or species of Hypoxis were color, shape, length and pubescence of leaves, the inflorescence in general, and length of pedicels and bracts. In addition, the tuber - when slashed - exudes a colored resin, usually yellow, but in some it was orange, cream or white, that soon turned black. The color of the resin, which I did not rely on for segregating (because initially I was not aware of this character), was consistent for those species I recognized.

I should also mention that not all of the Hypoxis plants I examined at Mufindi could be categorized into any of the seven types. About 15 plants could not be confidently associated with the seven recognized species. Of this 15 plants, the largest number to show any resemblance to each other was three.



Richard W. Spjut, Botanist  
Medicinal Plant Resources Laboratory

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BELTSVILLE, MARYLAND 20705

Enidria

April 23, 1976

Dr. John D. Douros, Head  
Natural Products Section  
DDB, DR&D, DCT, National Cancer Institute  
Blair Building, Room 4A17  
8300 Colesville Road  
Silver Spring, Maryland 20910

Dear Dr. Douros:

Enclosed are copies of correspondence between myself and Barry Sickles of Dr. Kupchan's laboratory and Geoffrey Cordell of Dr. Farnsworth's laboratory. The correspondence relates to plants listed on our current want list.

You might note that Gnidia glauca, a plant listed with high activity in the roots, is not currently wanted by Dr. Kupchan. Also, recollections of this species (collected in 1973) included over 700 pounds of roots and stems and these were active below 150%.

The PR-numbers listed under Hypoxis spp. were identified as Hypoxis obtusa by botanists at the East African Herbarium. However, I disagree with their identifications and believe that there are two or more species represented. The herbarium specimen representing the inactive PR-40811 collection comes closest to the one collected by Dr. Perdue which is supposed to represent the original active sample. The moderately active PR-40816 collection is a mixture of probably PR-40811, PR-40812, PR-40815 and other species which could not be separated because leaves and flowers were absent.

I believe that the enclosed correspondence illustrates the kind of information that should be provided to us on a routine basis when requests are made for recollections. Other reasons are exemplified in my memorandum to Dr. A. S. Barclay which is also enclosed.

Sincerely,

*Richard W. Spjut*

Richard W. Spjut, Botanist  
Medicinal Plant Resources Laboratory  
Building 265, Poultry Road  
E.A.R.C.-East

cc:  
R. E. Perdue  
A. S. Barclay  
M. S. Hatcher

Enclosures

Hypoxis

College of Pharmacy

Department of Pharmacognosy and Pharmacology

UNIVERSITY OF ILLINOIS AT THE MEDICAL CENTER, CHICAGO

833 South Wood Street · Chicago, Illinois · Area Code 312, Telephone 996-7253

Mailing Address: P. O. Box 6998 · Chicago, Illinois 60680

January 28, 1976

Richard W. Spjut, Botanist  
Medicinal Plant Resources Laboratory  
Building 265, Poultry Road  
B.A.R.C.-East  
U.S. Department of Agriculture  
Agricultural Research Service  
Northeastern Region  
Agricultural Research Center  
Beltsville, Maryland 20705

Dear Mr. Spjut:

In reply to your letter to Dr. Farnsworth of January 6, 1976:

Gnidia kraussiana

All of the samples of Gnidia kraussiana (PR-40807-40810) were highly active. PR-40807 was the least active. However, it appears that none of these samples was active as PR-23223 from the original collection.

Hypoxis goetzei

PR-40814            low activity

Hypoxis spp.

PR-40811            inactive  
PR-40812            low activity  
PR-40813            moderate activity  
PR-40815            low activity  
PR-40816            moderate activity

We hope this information is useful to you.

Sincerely yours,

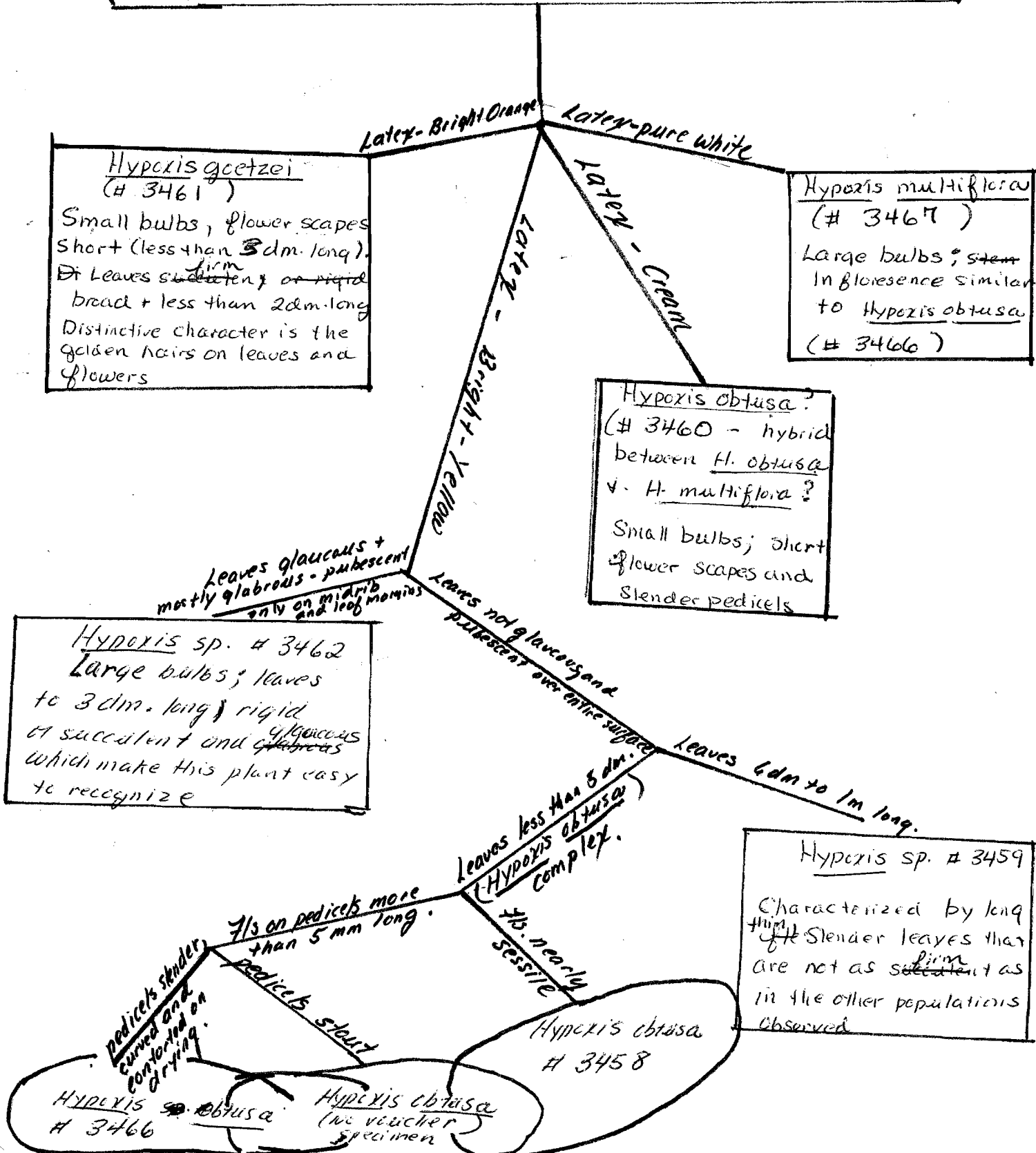
*Geoffrey A. Cordell*

Geoffrey A. Cordell, Ph.D.

GAC/sam

cc: N.R. Farnsworth, Ph.D.

COLOR OF LATEX ON FRESH-SLASHED TUBERS



7/10  
Pete  
REP  
May 9, 1974

Dr. Norman R. Farnsworth  
Professor of Pharmacognosy  
University of Illinois  
P.O. Box 6998  
Chicago, Illinois 60680

Dear Dr. Farnsworth:

This is in response to a letter from Dr. M. Tin-Wa dated April 30 and also to confirm our conversation of May 9, 1974.

You should have received PR-40816, Hypoxis sp. (SPJ-3468, 78 lbs. tu), but it may have been lost in shipment.

It appears that PR-40409, Gnidia sp. (Gnidia kraussiana), is an error. It should be PR-40809. The collector's number should identify the sample (SPJ-3491 = PR-40809).

The different PR numbers for all samples of Hypoxis represent different species and should be treated as different samples. PR-40811 appears to resemble Hypoxis obtusa (confirmed active). Also, PR-40815 appears to be Hypoxis multiflora - a sample (1-2 lbs.) of this species was collected by Dr. Perdue in Tanzania in 1971 but has not yet proved to be active. Until we receive confirmation on the identifications of our collections from East Africa, it is better to refer to these samples as Hypoxis sp. Samples named Hypoxis spp. refer to a combination of several species which could not be avoided because many of the bulbs lacked leaves and flowers which are necessary, in some cases, to separate the species. Most of the plant material in PR-40816 (which you should have received in the shipment) should be similar to PR-40811 (related to Hypoxis obtusa) because PR-40811 (SPJ-3458) was the most common species in the area in Mufindi, Tanzania.

Sincerely,

Richard W. Spjut, Botanist  
Medicinal Plant Resources Laboratory

cc: M. Tin-Wa