

A CONTRIBUTION TO THE FLORA OF KHARI RESERVE FOREST, MANDLA DISTRICT, MADHYA PRADESH *

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A B S T R A C T

This paper presents the essential features of topography, soil type, climate, vegetation and floristic composition of Khari Reserve Forest, Mandla District, Madhya Pradesh. It includes an enumeration list of about 388 species belonging to 286 genera and 86 families of Angiosperms and Pteridophytes.

INTRODUCTION

The present paper on the flora of Khari Reserve Forest is the outcome of an intensive study of the plants of this region by the authors during the years 1961-62. The Khari Reserve Forest forms a part of Hannamatta Reserve Forest which lies on the eastern side of the Satpura Hills in Mandla District. It is situated twenty miles North of Mandla township. The area falls between $80^{\circ}15'$ & $80^{\circ}30'E$ and $22^{\circ}30'$ & $22^{\circ}55'N$. The altitude varies from 400 to 700 m. Specimens were collected during February, November and December 1961 and March, April and August 1962. All the specimens collected have been deposited in the Regional Herbarium, Southern Circle, Botanical Survey of India, Coimbatore.

SOIL

A major portion of the division is capped with hard black rock of volcanic origin, known as Deccan trap. The soil produced by the disintegration of the rocks varies from loose sand to reddish or dark stiff clayey loam. In the trap area the common soil in the low lying portions is the stiff clayey soil commonly known as Black Cotton soil; but along the slopes the soil is dark or reddish ferruginous. The finer portions of the decomposed trap rock are washed down and deposited in the valleys to form a stiff soil in combination with organic matter. The colour of the soil varies from deep black to brownish black. Moisture retentive capacity of this soil is great.

CLIMATE AND RAINFALL

Just like other regions of Madhya Pradesh, three distinct seasons can be distinguished: hot season from middle of March to middle of June, rainy season from middle of June to middle of October and cold season from middle of October to middle of March. The heaviest precipitation occurs in July and August when the downpour is generally continuous and the sky always remains overcast. The average annual rainfall ranges from 40 to 160 cm. The cold is intensive in this part during the months of December and January and the temperature falls as low as $22^{\circ}F$.

GENERAL ASPECTS OF VEGETATION

The type of vegetation observed around Khari is of the typical open dry deciduous nature. Due to the reclamation of land, much of the forest is found in restricted areas. Vast areas of Teak-plantations also occur. The vegetation in general is quite uniform with dominant tree species like *Terminalia tomentosa* Wt. & Arn., *T. bellirica* (Gaertn.) Roxb., *T. chebula* Retz., *Anogeissus latifolia* (DC.) Wall. ex Bedd., *Madhuca indica* Gmel., *Adina cordifolia* (Roxb.) Hook. f., *Sterculia urens* Roxb., *Buchanania lanzan* Spr., *Emblia officinalis* Gaertn., *Semecarpus anacardium* Linn. f., *Butea monosperma* (Lamk.) Taub. etc., and shrubs like *Woodfordia fruticosa* (Linn.) Ktze., *Grewia hirsuta* Vahl, *Flacourtia indica* (Burm. f.) Merr., *Zizyphus*

*An abstract of this paper was included in the Proceedings of the 51st session of the Indian Science Congress.

mauritiana Lamk., *Z. xylopyra* (Retz.) Willd., *Caesalpinia crista* Linn., *C. sepiaria* Roxb. etc. In general the ground cover is chiefly composed of different members of Gramineae such as *Chloris dolichostachya* Lag., *Cynodon dactylon* (Linn.) Pers., *Iseilema prostratum* (Linn.) Anderss., *Dichanthium annulatum* (Forsk.) Stapf, *D. caricosum* (Linn.) A. Camus, etc., mixed with herbaceous plants like *Cleome viscosa* Linn., *Polygala chinensis* Linn., *Sida alba* Linn., *Urena lobata* Linn., *Corchorus olitorius* Linn., *Impatiens balsamina* Linn., *Oxalis corniculata* Linn., *Argemone mexicana* Linn., *Crotalaria sericea* Retz., *C. albida* Heyne ex Roth, *Desmodium gangeticum* (Linn.) DC., *Teramnus labialis* (Linn. f.) Spr., *Cassia tora* Linn., *Mollugo pentaphylla* Linn., *Borreria articulata* (Linn. f.) F. N. Will., *Oldenlandia corymbosa* Linn., *Lagascea mollis* Cav., *Solanum surattense* Burm. f., *Scoparia dulcis* Linn., *Rungia repens* (Linn.) Nees, *Justicia simplex* D. Don, *Leucas aspera* Spr., *Boerhavia diffusa* Linn., *Euphorbia rosea* Retz., *E. thymifolia* Linn., *Phyllanthus simplex* Retz. and *Curcuma amada* Roxb. It is interesting to report that *Ophioglossum reticulatum* Linn. and *O. costatum* R. Br. are abundant in the moist localities throughout the forest. Many of the large trees harbour numerous plants of *Vanda* and *Aerides* which are the chief epiphytic Orchids. Terrestrial Orchids are represented by species of *Habenaria*. Though the forest is not rich in fern flora, species like *Adiantum caudatum* Linn., *A. philippense* Linn. and *Aleuritopteris anceps* (Blanford) Panig. are common. River Narmada which flows through Mandla town fosters *Vallisneria spiralis* Linn. and *Potamogeton pectinatus* Linn. in abundance.

The Bamboos do not form pure forests. They are found associated with other species mentioned above in varying proportions. The Bamboos in Mandla are considered to be poor in quality. *Dendrocalamus strictus* Nees is the common species in this area.

A total number of 388 species belonging to 286 genera and 86 families have been collected and studied. For each species the condition of flowering or fruiting, date of collection, frequency, locality and field number are given in the following enumeration. The species under each family are arranged in alphabetical order. Every attempt has been made to bring the nomenclature upto date.

ENUMERATION

The name of the collector for all the field numbers is *J. Joseph*.

OPHIOGLOSSACEAE

Ophioglossum costatum R. Br.

Fertile (10-8-1962), common. Khari R. F., 14383.

O. polyphyllum A. Br.

Fertile (10-8-1962), very common. Khari R. F., 14384.

O. reticulatum Linn.

Fertile (10-8-1962), common. Khari R. F., 14385.

PTERIDACEAE

Adiantum caudatum Linn.

Fertile (11-8-1962), common. Khari R. F., 14387.

A. philippense Linn.

Fertile (10-8-1962), fairly common. Khari R. F., 14371.

Aleuritopteris anceps (Blanford) Panig.

Fertile (13-8-1962), common. Khari R. F., 14408.

MARSILEACEAE

Marsilea quadrifolia Linn.

Fertile (24-8-1962), common. Mandla, 14728.

ANNONACEAE

Annona reticulata Linn.

Flowering (22-8-1962), common-cultivated. Chiraidongri, 14705.

A. squamosa Linn.

Flowering and fruiting (18-8-1962), common. Chiraidongri, 14451.

MENISPERMACEAE

Cissampelos pareira Linn.

Flower buds (11-8-1962), common. Khari R. F., 14390.

Cocculus hirsutus (Linn.) Diels

Flowering (10-2-1961), very common. South Mandla, 12266.

PAPAVERACEAE

Argemone mexicana Linn.

Flowering and fruiting (3-4-1962), very common. Khari R. F., 13391.

CRUCIFERAE

Brassica napus Linn.

Flowering and fruiting (21-8-1962), common-cultivated. Mangalkanj, 14479.

Cochlearia cochlearioides (Roth) Sant. et J. K. Maheshwari

Flowering (3-12-1961), fairly common. Narmada river bed-Mandla, 13529. Flowering and fruiting (3-4-1962), Khari R. F., 13987.

Rorippa indica (Linn.) Hiern.

Flowering and fruiting (12-2-1961), common. Mandla, 12281.

CAPPARACEAE

Capparis zeylanica Linn.

Flowering (10-2-1961), common. South Mandla, 12252.

Cleome chelidonii Linn. f.

Flowering and fruiting (18-8-1962), common. Chiraidongri, 14438.

C. gynandra Linn.

Flowering and fruiting (21-8-1962), common. Mangalkanj, 14486.

C. monophylla Linn.

Flowering and fruiting (20-8-1962), very common. Khari R. F., 14412.

C. simplicifolia Hook. f. & Thoms.

Flowering and fruiting (20-8-1962), common. Chiraidongri, 14468.

C. viscosa Linn.

Flowering and fruiting (13-8-1962), very common. Khari R. F., 14400.

FLACOURTIACEAE

Flacourtia indica (Burm. f.) Merr.

Flowering and fruiting (4-4-1962), fairly common. Khari R. F., 14003.

POLYGALACEAE

Polygala chinensis Linn.

Flowering (21-8-1962), very common. Mangalkanj, 14483.

P. rosmarinifolia Wt. & Arn.

Flowering and fruiting (10-8-1962), very common. Khari R. F., 14372.

CARYOPHYLLACEAE

Polycarpaea corymbosa Lamk.

Flowering (2-12-1961), very common. Narmada river bed-Mandla, 13517.

PORTULACACEAE

Portulaca oleracea Linn.

Flowering and fruiting (26-11-1961), common. Khari R. F., 13429.

MALVACEAE

Abelmoschus manihot (Linn.) Medik.

Flowering and fruiting (30-11-1961), fairly common. Khari R. F., 13514.

Hibiscus panduraeformis Burm.

Flowering and fruiting (7-2-1961), common. Bichhia, 12218.

Kydia calycina Roxb.

Fruiting (20-11-1961), common. Khari R. F., 13481.

Sida alba Linn.

Flowering and fruiting (2-12-1961), common. Narmada river bed-Mandla, 13519.

S. veronicaefolia Lamk.

Flowering and fruiting (28-11-1961), fairly common. Khari R. F., 13465.

Urena lobata Linn.

Flowering and fruiting (28-11-1961), common. Khari R. F., 13453.

BOMBACACEAE

Bombax ceiba Linn.

Flowering (3-4-1962), common. Khari R. F., 13984.

STERCULIACEAE

Helicteres isora Linn.

Flowering (18-8-1962), common. Chiraidongri R. F., 14430.

Kleinhovia hospita Linn.

Fruiting (3-12-1961), common. Narmada river bed-Mandla, 13534.

Sterculia urens Roxb.

Flowering (15-2-1961), common. Khari R. F., 12298. Fruiting (3-4-1962), 13985.

TILIACEAE

Corchorus aestuans Linn.

Fruiting (26-11-1961), very common. Khari R. F., 13424.

C. olitorius Linn.

Flowering (10-8-1962), fairly common. Khari R. F., 14373.

Grewia hirsuta Vahl

Flowering (10-8-1962), very common. Khari R. F., 14375.

Triumfetta rhomboidea Jacq.

Flowering and fruiting (27-11-1961), very common. Khari R. F., 13437.

LINACEAE

Linum usitatissimum Linn.

Flowering and fruiting (7-2-1961), cultivated. Bichhia, 12217.

GERANIACEAE

Impatiens balsamina Linn.

Flowering (19-8-1962), common. Chiraidongri, 14461.

OXALIDACEAE

Oxalis corniculata Linn.

Flowering and fruiting (4-4-1962), very common. Khari R. F., 14009.

BURSERACEAE

Boswellia glabra Roxb.

Fruiting (4-4-1962), very common. Khari R. F., 14002.

Garuga pinnata Roxb.

Flowering (6-4-1962), common. Khari R. F., 14024.

MELIACEAE

Azadirachta indica A. Juss.

Flowering (9-4-1962), common-cultivated. Mandla, 14046.

RHAMNACEAE

Ventilago denticulata Willd.

Flowering (28-11-1961), common. Khari R. F., 13455. Fruiting (11-2-1961), Mandla, 12272.

Zizyphus mauritiana Lamk.

Fruiting (18-8-1962), very common. Chiraidongri R. F., 14444.

Z. rugosa Lamk.

Flowering (3-4-1962), very common. Khari R. F., 13983.

Z. xylopyra (Retz.) Willd.

Fruiting (18-8-1962), common. Chiraidongri R. F., 14446.

VITACEAE

Ampelocissus latifolia (Roxb.) Planch.

Flowering (10-8-1962), common. Khari R. F., 14382.

A. tomentosa (Heyne) Planch.

Flowering (10-8-1962), common. Khari R. F., 14381.

Cayratia carnosia (Wall.) Gagnep.

Flowering (19-8-1962), common. Chiraidongri R. F., 14462.

LEEACEAE

Leea edgeworthii Sant.

Flowering (10-8-1962), fairly common. Khari R. F., 14369.

L. macrophylla Roxb.

Flowering (21-8-1962), common. Mangalkanj, 14500.

SAPINDACEAE

Cardiospermum halicacabum Linn.

Flowering and fruiting (21-8-1962), very common. Mangalkanj, 14488.

Schleichera oleosa (Lour.) Oken

Flowering (5-4-1962), common. Khari R. F., 14018.

ANACARDIACEAE

Buchanania lanzan Spr.

Flowering (7-2-1961), very common. Bichhia, 12228.

Lannea coromandelica (Houtt.) Merr.

Flowering (2-4-1962), common. Khari R. F., 13975.

Mangifera indica Linn.

Flowering (2-4-1962), common. Khari R. F., 14027.

Semecarpus anacardium Linn. f.

Flowering (21-8-1962), common. Mangalkanj, 14494. Fruiting (30-11-1961), Khari R. F., 13510.

PAPILIONACEAE

Aeschynomene indica Linn.

Flowering and fruiting (28-11-1961), common. Khari R. F., 13463.

Alysicarpus bupleurifolius (Linn.) DC.

Flowering (29-11-1961), common. Khari R. F., 14463.

A. monilifer DC.

Flowering and fruiting (19-8-1962), common. Chiraidongri R. F., 14458.

A. rugosus (Willd.) DC.

Flowering and fruiting (7-2-1961), common. Bichhia, 12230.

Atylosia scarabaeoides Benth.

Flowering (18-8-1962), common. Chiraidongri R. F., 14432.

Butea monosperma (Lamk.) Taub.

Flowering (4-4-1962), common. Khari R. F., 14008.

B. superba Roxb.

Flowering (6-4-1962), common. Khari R. F., 14022.

Cajanus cajan (Linn.) Millsp.

Flowering and fruiting (7-4-1962), common-cultivated. Mandla, 14031.

Crotalaria alata Ham.

Flowering (18-8-1962), fairly common. Chiraidongri R. F., 14436.

C. albida Heyne ex Roth

Flowering and fruiting (29-11-1961), very common. Khari R. F., 13479.

C. linifolia Linn. f.

Flowering (24-8-1962), common. Mandla, 14719.

Crotalaria sericea Retz.

Flowering (30-11-1961), common. Khari R. F., 13513. Fruiting (4-4-1962), 14013.

Dalbergia sissooides Grah.

Flowering (11-2-1961), common. Mandla, 12273.

D. sissoo Roxb.

Fruiting (25-8-1962), common. Mandla, 14735.

Desmodium gangeticum (Linn.) DC.

Flowering and fruiting (29-11-1961), very common. Khari R. F., 13474.

D. pulchellum Benth.

Fruiting (28-11-1961), common. Khari R. F., 13447.

D. velutinum (Willd.) DC.

Fruiting (28-11-1961), very common. Khari R. F., 13452.

Heylandia latebrosa DC.

Flowering (18-8-1962), common. Chiraidongri R. F., 14445.

Indigofera cassioides Rottl.

Flowering (7-2-1961), common. Bichhia, 12225. Fruiting (3-4-1962), Khari R. F., 13986.

I. cordifolia Heyne

Flowering (20-8-1962), common. Chiraidongri R. F., 14473.

I. glandulosa Roxb. ex Willd.

Flowering (21-8-1962), common. Mangalkanj, 14493.

I. hirsuta Linn.

Fruiting (28-11-1961), very common. Khari R. F., 13469.

I. linifolia Retz.

Flowering (20-8-1962), common. Chiraidongri R. F., 14466.

I. linnaei Ali

Flowering (20-8-1962), common. Chiraidongri R. F., 14464.

I. prostrata Willd.

Flowering (10-8-1962), fairly common. Khari R. F., 14376.

Lathyrus sativus Linn.

Flowering (7-2-1961), cultivated. Bichhia, 12214.

Lens culinaris Medik.

Flowering (7-2-1961), rare. Bichhia, 12224.

Melilotus alba Desr.

Flowering and fruiting (8-4-1962), very common. Narmada river bed-Mandla, 14042.

Moghania bracteata (Roxb.) Linn.

Flowering and fruiting (7-2-1961), common. Khari R. F., 13995.

M. nana (Roxb.) Mukerjee

Flowering and fruiting (4-4-1962), common. Khari R. F., 13995.

Mucuna prurita Hook.

Fruiting (29-11-1961), common. Khari R. F., 13493.

Ougeinia oojeinensis (Roxb.) Hoch.

Flowering and fruiting (2-4-1962), common. Khari R. F., 13974.

Phaseolus trilobus Ait.

Flowering and fruiting (21-8-1962), very common, often cultivated. Mangalkanj, 14495.

Rothia trifoliata Pers.

Flowering (2-12-1961), very common. Narmada river bank-Mandla, 13524.

Smithia geminiflora Roth

Flowering (26-11-1961), common. Khari R. F., 13416.

Teramnus labialis (Linn. f.) Spr.

Flowering (24-8-1962), common. Mandla, 14723.

Uraria lagopodioides Desv.

Flowering (18-8-1962), common. Chiraidongri R. F., 14428.

U. picta Desv.

Fruiting (28-11-1961), common. Khari R. F., 13456.

U. rufescens (DC.) Schindl.

Fruiting (28-11-1961), common. Khari R. F., 13470.

Vicia hirsuta Koeh.

Flowering (26-11-1961), rare. Khari R. F., 13430.

Zornia gibbosa Span.

Flowering and fruiting (30-11-1961), very common. Khari R. F., 13502.

CAESALPINIACEAE

Bauhinia retusa Ham.

Fruiting (8-2-1961), common. Bichhia, 12245.

B. vahlii Wt. & Arn.

Flowering (6-4-1962), common. Khari R. F., 14023.

B. variegata Linn.

Flowering (7-2-1961), common. Bichhia, 12222. Fruiting (11-2-1961), Mandla, 12276.

Caesalpinia crista Linn.

Flowering (11-8-1962), common. Khari R. F., 14396.

C. decapetala (Roth) Alston

Flowering (10-2-1961), common. Mandla, 12254.

Cassia fistula Linn.

Fruiting (29-11-1961), common. Khari R. F., 13491.

Cassia occidentalis Linn.

Flowering (24-8-1962), very common. Mandla, 14715.

C. pumila Lamk.

Flowering and fruiting (30-11-1961), very common. Khari R. F., 13501.

C. sophera Linn.

Flowering (24-8-1962), common. Mandla, 14713.

C. tora Linn.

Flowering (25-8-1962), very common. Mandla, 14732.

Poinciana pulcherrima Linn.

Flowering (9-4-1962), common. Mandla, 14049.

Tamarindus indica Linn.

Flowering and fruiting (2-8-1962), common. Mangalkanj, 14499.

MIMOSACEAE

Acacia arabica (Lamk.) Willd.

Fruiting (11-2-1961), very common. Mandla, 12270.

A. catechu Willd.

Flowering (18-8-1962), common. Chiraidongri R. F., 14431.

A. leucophloea (Roxb.) Willd.

Flower buds (18-8-1962), common. Chiraidongri R. F., 14433.

A. pennata (Linn.) Willd.

Fruiting (30-11-1961), common. Khari R. F., 12251.

Albizia procera (Roxb.) Benth.

Fruiting (21-8-1962), common. Mangalkanj, 14487.

Mimosa himalayana Gamble

Flowering (18-8-1962), common. Chiraidongri R. F., 14482.

M. pudica Linn.

Flowering and fruiting (24-8-1962), very common. Mandla, 14710.

Pithecellobium dulce (Roxb.) Benth.

Flowering (10-2-1961), common. South Mandla, 12253.

ROSACEAE

Potentilla supina Linn.

Flowering (3-4-1962), very common. Khari R. F., 13990.

COMBRETACEAE

Anogeissus latifolia (DC.) Wall. ex Bedd.

Fruiting (29-11-1961), very common. Khari R. F., 13480.

Quisqualis indica Linn.

Flowering (24-8-1962), common. Mandla, 14722.

Terminalia bellirica (Gaertn.) Roxb.

Fruiting (28-11-1961), common. Khari R. F., 13471.

T. chebula Retz.

Fruiting (30-11-1961), very common. Khari R. F., 13500.

T. chebula Retz. var. **tomentella** Cl.

Flowering (4-4-1962), common. Khari R. F., 14007.

T. tomentosa Wt. & Arn.

Fruiting (27-11-1961), common. Khari R. F., 13441.

MYRTACEAE

Syzygium cumini (Linn.) Skeels

Flower buds (4-4-1962), common. Khari R. F., 13998.

LECYTHIDACEAE

Careya arborea Roxb.

Flowering (4-4-1962), common. Khari R. F., 14010.

LYTHRACEAE

Ammannia multiflora Roxb.

Flowering and fruiting (26-11-1961), common. Khari R. F., 13428.

Lagerstroemia parviflora Roxb.

Fruiting (30-11-1961), common. Khari R. F., 13499.

Lawsonia inermis Linn.

Flower buds (7-4-1962), very common. Mandla, 14030.

Rotala baccifera Koeh.

Flowering (7-2-1961), common. Bichhia, 12221.

R. indica (Willd.) Koeh.

Flowering (29-11-1961), common. Khari R. F., 13488.

R. serpyllifolia (Roth) Bren.

Flowering (6-2-1961), common. Narmada river bank-Mandla, 12207.

Woodfordia fruticosa (Linn.) Kurz

Flowering (29-11-1961), common. Khari R. F., 13490.

ONAGRACEAE

Ludwigia octovalvis (Jacq.) Raven

Fruiting (30-11-1961), common. Khari R. F., 13533.

SAMYDACEAE

Casearia graveolens Dalz.

Flowering (4-4-1962), common. Khari R. F., 14011.

TURNERACEAE

Turnera ulmifolia Linn. var. **angustifolia** Willd.

Flowering (24-8-1962), common. Narmada river bank-Mandla, 14711.

CUCURBITACEAE

- Cucumis melo** Linn. var. **agrestis** Naud.
Flowering (11-8-1962), common. Khari R. F., 14398.
- Diplocyclos palmatus** (Linn.) Jeffrey
Flowering and fruiting (26-11-1961), common. Khari R. F., 13420.
- Lagenaria leucantha** (Duch.) Rusby
Flowering and fruiting (4-4-1962), common. Khari R. F., 14006.
- Melothria maderaspatana** (Linn.) Cogn.
Flowering and fruiting (21-8-1962), common. Mangalkanj, 14497.
- Momordica charantia** Linn.
Flowering and fruiting (18-8-1962), common-cultivated. Chiraidongri R. F., 14440.

CACTACEAE

- Opuntia monacantha** Haw.
Flowering (24-8-1962), common. Mandla, 14021.

MOLLUGINACEAE

- Glinus lotoides** Linn.
Flowering (5-4-1962), common. Khari R. F., 14021.
- Mollugo pentaphylla** Linn.
Flowering (26-11-1961), common. Khari R. F., 13422.

UMBELLIFERAE

- Foeniculum vulgare** Mill.
Flowering (12-2-1961), common-cultivated. Mandla, 12290.
- Pimpinella heyneana** Wall.
Flowering (28-11-1961), common. Khari R. F., 13459.

ALANGIACEAE

- Alangium salvifolium** Wang.
Flowering (9-4-1962), common. Mandla, 14048.

RUBIACEAE

- Adina cordifolia** (Roxb.) Hook. f.
Flowering (27-11-1961), common. Khari R. F., 13445.
- Anotis decipiens** Hook. f.
Flowering (24-8-1962), very common. Mandla, 14716.
- Anthocephalus cadamba** (Roxb.) Miq.
Flowering (24-8-1962), rare. Mandla, 14708.
- Borreria articularis** (Linn. f.) F. N. Will.
Flowering and fruiting (30-11-1961), very common. Khari R. F., 13503.
- Gardina latifolia** Ait.
Flowering (2-4-1962), common. Khari R. F., 13976. Fruiting (29-11-1961), 13485.

Hymenodictyon excelsum (Roxb.) Wall.

Flowering (10-8-1962), common. Khari R. F., 14366. Fruiting (29-11-1961), 13485.

Ixora cuneifolia Roxb.

Flowering (7-4-1962), common. Mandla, 14039.

Knoxia sumatrensis (Retz.) DC.

Flowering (18-8-1962), common. Chiraidongri R. F., 14427.

Mitragyna parvifolia (Roxb.) Korth.

Fruiting (28-11-1961), common. Khari R. F., 13454.

Oldenlandia corymbosa Linn.

Flowering (27-11-1961), very common. Khari R. F., 13434.

O. nitida (Wt. & Arn.) Gamble

Flowering (19-8-1962), common. Chiraidongri R. F., 14454.

Wendlandia heynei (Roem. & Schult.) Sant. & Merch.

Flowering (9-4-1962), common. Mandla, 14047.

COMPOSITAE

Acanthospermum hispidum DC.

Flowering (14-8-1962), very common. Khari R. F., 14419.

Ageratum conyzoides Linn.

Flowering (14-8-1962), common. Khari R. F., 14411.

Blainvillea acmella (Linn. f.) Philipson

Flowering (14-8-1962), very common. Khari R. F., 14418.

Blumea laciniata (Roxb.) DC.

Flowering (12-2-1961), common. Mandla, 12292.

Caesulia axillaris Roxb.

Flowering (26-11-1961), common. Khari R. F., 13426.

Centipeda minima (Linn.) A. Br. et Aschers

Flowering (6-2-1961), very common. Narmada river bank-Mandla, 12212.

Centratherum anthelminticum (Willd.) Ktze.

Flowering (26-11-1961), common. Khari R. F., 13413.

Chrysanthellum indicum DC.

Flowering (13-8-1962), common. Khari R. F., 14399.

Cosmos sulphureus Cav.

Flowering (29-11-1961), common. Khari R. F., 13476.

Cyathocline purpurea (Don) Ktze.

Flowering (27-11-1961), common. Khari R. F., 13443.

Eclipta prostrata (Linn.) Linn.

Flowering and fruiting (14-8-1962), very common. Khari R. F., 14413.

Elephantopus scaber Linn.

Flowering and fruiting (28-11-1961), common. Khari R. F., 13446.

Glossocardia bosvallea DC.

Flowering (20-8-1962), common. Chiraidongri R. F., 14465.

Gnaphalium indicum Linn.

Flowering (6-2-1961), common. Narmada river bank-Mandla, 12211.

Goniocaulon glabrum Cass.

Flowering (7-2-1961), common. Bichhia, 12231.

Grangea maderaspatana (Linn.) Poir.

Flowering (6-2-1961), very common. Narmada river bank-Mandla, 12201.

Guizotia abyssinica Cass.

Flowering (30-11-1961), common. Khari R. F., 13507.

Lagascea mollis Cav.

Flowering (28-11-1961), very common. Khari R. F., 13451.

Siegesbeckia orientalis Linn.

Flowering (27-11-1961), very common. Khari R. F., 13439.

Sphaeranthus indicus Linn.

Flowering (6-2-1961), common. Narmada river bank-Mandla, 12209.

Spilanthes paniculata Wall. ex DC.

Flowering (25-8-1962), common. Mandla, 14731.

Tithonia diversifolia A. Gray

Flowering (3-12-1961), common. Narmada river bed-Mandla, 13531.

Vernonia cinerea (Linn.) Less.

Flowering (19-8-1962), common. Chiraidongri R. F., 14457.

V. divergens (Roxb.) Edgew.

Flower buds (29-11-1961), common. Khari R. F., 13492.

Vicoa indica (Willd.) DC.

Flowering (7-2-1961), common. Bichhia, 12234.

Volutarella ramosa (Roxb.) Sant.

Flowering and fruiting (4-4-1962), common. Khari R. F., 14001.

Xanthium strumarium Linn.

Fruiting (12-2-1961), common. Mandla, 12288.

CAMPANULACEAE

Campanula canescens Wall.

Flowering (30-11-1961), common. South Mandla, 12267.

MYRSINACEAE

Embelia tsjeriam-cottam DC.

Flowering (30-11-1961), fairly common. Khari R. F., 13511.

THEOPHRASTACEAE

Jacquinia ruscifolia Jacq.

Flower buds (7-4-1962), rare. Mandla, 14040.

SAPOTACEAE

Madhuca indica Gmel.

Flowering (3-4-1962), common. Khari R. F., 13982.

OLEACEAE

Nyctanthes arbortristis Linn.

Flowering and fruiting (29-11-1961), common. Khari R. F., 13484.

APOCYNACEAE

Aganosma caryophyllata (Roxb. ex Sims) G. Don

Flowering (24-8-1962), rare. Mandla, 14707.

Carissa congesta Wt.

Flowering (18-8-1962), common. Chiraidongri R. F., 14893.

C. opaca Stapf

Flowering (18-8-1962), common. Chiraidongri R. F., 14450.

Ervatamia heyneana T. Cooke

Flowering (6-4-1962), common. Khari R. F., 14029.

ASCLEPIADACEAE

Calotropis gigantea (Linn.) R. Br.

Flowering (12-2-1961), very common. Mandla, 12289.

Pergularia daemia (Forsk.) Blatt. & McCann

Flowering (24-8-1962), common. Mandla, 14706.

GENTIANACEAE

Canscora decurrens Dalz.

Flowering (26-11-1961), very common. Khari R. F., 13417.

C. diffusa R. Br.

Flowering (10-2-1961), common. South Mandla, 12268.

Centaurium roxburghii (G. Don) Druce

Flowering (6-4-1962), very common. Khari R. F., 14025.

Exacum bicolor Roxb.

Flowering and fruiting (28-11-1961), common. Khari R. F., 13468.

BORAGINACEAE

Cynoglossum meeboldii Brand.

Flowering (4-4-1962), fairly common. Khari R. F., 13996.

Trichodesma amplexicaule Roth

Flowering (18-8-1962), fairly common. Chiraidongri R. F., 14443.

T. zeylanicum R. Br.

Flowering (7-2-1961), common. Bichhia, 12237.

EHRETIACEAE

Cordia macleodii Hook. f. & Thoms.

Flowering (5-4-1962), fairly common. Khari R. F., 14015.

Ehretia laevis Roxb.

Flowering (3-4-1962), very common. Khari R. F., 13981.

Rotula aquatica Lour.

Flowering (6-2-1961), common. Narmada river bed-Mandla, 12208.

CONVOLVULACEAE

Argyrea hirsuta Arn.

Flowering (11-8-1962), common. Khari R. F., 14392.

Convolvulus microphyllus Sieb. ex Spr.

Flowering (2-12-1961), common. Narmada river bed-Mandla, 13518.

Cuscuta reflexa Roxb.

Flowering (10-2-1961), very common. South Mandla, 12259.

Ipomoea hederifolia Linn.

Flowering and fruiting (29-11-1961), very abundant. Khari, 13473.

I. muricata (Linn.) Jacq.

Flowering (30-11-1961), very common. Khari R. F., 13512.

I. pes-tigridis Linn.

Flowering (26-11-1961), very common. Khari R. F., 13425.

I. sepiaria Roxb.

Flowering (18-8-1962), common. Chiraidongri R. F., 14441.

Merremia gangetica (Linn.) Cufodont.

Flowering and fruiting (7-2-1961), very common. Bichhia, 12232.

Operculina turpethum Silva Manso

Flowering (7-2-1961), common. Bichhia, 12226.

Porana paniculata Roxb.

Flowering (30-11-1961), very common. Khari R. F., 13508.

SOLANACEAE

Datura metel Linn.

Flowering (24-8-1962), common. Narmada river bank-Mandla, 14709.

Nicandra physaloides (Linn.) Gaertn.

Flowering and fruiting (27-11-1961), common. Khari R. F., 13431.

Nicotiana tabacum Linn.

Flowering (4-4-1962), an escape from cultivation. Khari R. F., 14014.

Physalis minima Linn.

Flowering (20-8-1962), very common. Chiraidongri R. F., 14467.

Solanum incanum Linn.

Flowering (22-8-1962), common. Chiraidongri R. F., 14701.

S. indicum Linn.

Flowering (4-4-1962), common. Khari R. F., 14000.

S. surattense Burm. f.

Flowering and fruiting (11-2-1961), very common. Mandla, 12271.

SCROPHULARIACEAE

Centranthera nepalensis D. Don

Fruiting (29-11-1961), common. Khari R. F., 13494.

Dopatrium junceum (Roxb.) Buch.-Ham.

Flowering (19-8-1962), common. Chiraidongri, 14456.

Herpestis chamaedryoides H. B. K.

Flowering (3-12-1961), common. Narmada river bed-Mandla, 13526.

Kickxia ramosissima (Wall.) Janchen

Flowering (10-2-1961), common. South Mandla, 12264.

Lindenbergia indica (Linn.) Ktze.

Flowering (10-2-1961), common. South Mandla, 12269.

Lindernia ciliata (Colsm.) Pennell

Flowering (20-8-1962), common. Chiraidongri R. F., 14477.

L. parviflora (Roxb.) Haines

Flowering (6-2-1961), common. Narmada river bed-Mandla, 12205.

Scoparia dulcis Linn.

Flowering and fruiting (8-4-1962), common. Mandla, 14043.

Striga angustifolia (Don) Saldanha

Flowering (7-2-1961), common. Bichhia, 12239.

S. densiflora Benth.

Flowering (24-8-1962), common. Mandla, 14725.

Sutera dissecta (Del.) Walp.

Flowering (6-2-1961), common. Narmada river bank-Mandla, 12206.

Verbascum chinense (L.) Sant.

Flowering (6-2-1961), common. Narmada river bank-Mandla, 12210. Fruiting (2-4-1962), Khari R. F., 13980.

Veronica anagallis Linn.

Flowering (6-2-1961), common. Narmada river bank-Mandla, 12203.

BIGNONIACEAE

Radermachera xylocarpa (Roxb.) Schum.

Flowering (5-4-1962), common. Khari R. F., 14017.

PEDALIACEAE

Sesamum indicum Linn.

Flowering (21-8-1962), common-cultivated. Mangalkanj, 14485.

MARTYNIACEAE

Martynia annua Linn.

Flowering (14-8-1962), common. Khari R. F., 14416.

ACANTHACEAE

Adhatoda vasica Nees

Flowering (10-2-1961), common. South Mandla, 12256.

Barleria cristata Linn.

Fruiting (27-11-1961), common. Khari R. F., 13445.

Bremekampia verticillata (Roxb.) Sreem.

Flowering (10-2-1961), common. South Mandla, 12262.

Dicliptera bupleuroides Nees

Flowering (3-4-1962), very common. Khari R. F., 13989.

Eranthemum purpurascens Nees

Flowering (2-4-1962), common. Khari R. F., 13979.

Gantelbua urens (Heyne ex Roth) Brem.

Flowering (7-4-1962), common. Narmada river bed-Mandla, 14036.

Hemigraphis latebrosa Nees var. **heyneana** Brem.

Flowering (28-11-1961), common. Khari R. F., 13458.

Hygrophila auriculata (Schumach) Heine

Flowering and fruiting (30-11-1961), common. Khari R. F., 13497.

H. polysperma (Roxb.) T. And.

Flowering (27-11-1961), common. Khari R. F., 13435.

H. serphyllum (Nees) T. And.

Flowering (4-4-1962), very common. Khari R. F., 13994.

Justicia quinqueangularis Koen. var. **peplodes** T. And.

Flowering (20-8-1962), common. Chiraidongri, 14471.

J. simplex D. Don

Flowering (27-11-1961), common. Khari R. F., 13444.

Lepidagathis incurva Buch.-Ham. ex D. Don

Flowering (5-4-1962), very common. Khari R. F., 14020.

Peristrophe bicalyculata (Retz.) Nees

Flowering (26-11-1961), very common. Khari R. F., 13412.

P. montana Nees

Flowering (29-11-1961), common. Khari R. F., 13478.

Rungia pectinata (Linn.) Nees

Flowering (28-11-1961), common. Khari R. F., 13418.

R. repens (Linn.) Nees

Flowering (28-11-1961), common. Khari R. F., 13467.

VERBENACEAE

Clerodendrum serratum (Linn.) Moon

Flowering (15-8-1962), common. Khari R. F., 14420.

Duranta repens Linn.

Flowering (24-8-1962), common. Mandla, 14714.

Gmelina arborea Roxb.

Flowering (4-4-1962), common. Khari R. F., 14005.

Vitex negundo Linn.

Flowering (2-12-1961), common. Narmada river bank-Mandla, 13521.

LABIATAE

Anisomeles indica Ktze.

Flowering (29-11-1961), common. Khari R. F., 13483.

Hyptis suaveolens (Linn.) Poit.

Flowering and fruiting (28-11-1961), very abundant. Khari R. F., 13448.

Leonotis nepetaefolia R. Br.

Flowering (3-12-1961), common. Narmada river bed-Mandla, 13532.

Leucas aspera Spr.

Flowering (14-8-1962), common. Khari R. F., 14409.

L. cephalotes Spr.

Flowering (21-8-1962), common. Mangalkanj, 14482.

L. mollissima Wall.

Flowering (28-11-1961), common. Khari R. F., 13457.

Leucas stricta Benth.

Flowering (25-8-1962), common. Mandla, 14730.

Nepeta hindostana (Roth) Haines

Flowering (7-2-1961), common. Bichhia, 12220.

Ocimum americanum Linn.

Flowering (14-8-1962), common. Khari R. F., 14410.

O. gratissimum Linn.

Flowering (10-8-1962), common. Khari R. F., 14368.

Orthosiphon pallidus Royle

Flowering (21-8-1962), common. Mangalkanj, 14481.

Pogostemon benghalensis (Burm. f.) Ktze.

Flowering (10-2-1961), common. South Mandla, 12260.

NYCTAGINACEAE

Boerhavia diffusa Linn.

Flowering and fruiting (15-8-1962), very common. Khari R. F., 14422.

Mirabilis jalapa Linn.

Flowering and fruiting (18-8-1962), common. Chiraidongri, 14434.

AMARANTHACEAE

Achyranthes aspera Linn.

Flowering (22-11-1961), common. Khari R. F., 13488.

Aerva lanata (Linn.) Juss.

Flowering (12-2-1961), common. Mandla, 12282.

Alternanthera sessilis (Linn.) R. Br.

Flowering (27-11-1961), common. Khari R. F., 13433.

Amaranthus gracilis Desf.

Flowering (8-4-1962), very common. Narmada river bed-Mandla, 14041.

A. spinosus Linn.

Flowering (8-2-1961), common. Bichhia, 12241.

A. tricolor Linn.

Flowering (30-11-1961), common. Khari R. F., 13495.

Celosia argentea Linn.

Flowering (26-11-1961), common. Khari R. F., 13423.

Psilotrichum ferrugineum (Roxb.) Moq.

Flowering (24-8-1962), common. Mandla, 14721.

CHENOPODIACEAE

Chenopodium album Linn.

Flowering (4-4-1962), common. Khari R. F., 13997.

POLYGONACEAE

Polygonum glabrum Willd.

Flowering (12-2-1961), common. Mandla, 12285.

P. plebeium R. Br.

Flowering (2-4-1962), common. Khari R. F., 13978.

Rumex dentatus Linn.

Flowering (4-4-1962), common. Khari R. F., 13399.

LORANTHACEAE

Dendrophthoe falcata (Linn. f.) Etting.

Flowering (7-2-1961), common. Bichhia, 12227.
Fruiting (4-4-1962), Khari R. F., 14012.

Scurrula cordifolia (Wall.) G. Don

Fruiting (7-2-1961), common. Bichhia, 12219.

EUPHORBIACEAE

Acalypha malabarica Muell.-Arg.

Flowering (18-8-1962), common. Chiraidongri R. F., 14447.

Antidesma menasu Miq.

Flowering (10-8-1962), common. Khari R. F., 14374.

Bridelia squamosa Gehrm.

Flower buds (10-8-1962), common. Khari R. F., 14367.

Chrozophora rottleri (Geis.) Juss. ex Spr.

Fruiting (24-8-1962), common. Mandla, 14717.

Emblica officinalis Gaertn.

Flowering (5-4-1962), common. Khari R. F., 14016.

Euphorbia geniculata Ort.

Flowering (14-8-1962), common. Khari R. F., 14414.

E. rosea Retz.

Flowering and fruiting (7-4-1962), common. Narmada river bank-Mandla, 14035.

E. thymifolia Linn.

Flowering and fruiting (28-11-1961), common. Khari R. F., 13472.

Glochidion velutinum Wt.

Flowering (6-4-1962), common. Khari R. F., 14026.

Jatropha curcas Linn.

Fruiting (15-8-1962), common. Khari R. F., 14421.

J. gossypifolia Linn.

Flowering (22-8-1962), very common. Chiraidongri, 14703.

Mallotus philippensis (Lamk.) Muell.-Arg.

Flowering (18-8-1962), common. Chiraidongri R. F., 14435.

Phyllanthus asperulatus Hutch.

Flowering and fruiting (21-8-1962), very common. Mangalkanj, 14489.

P. maderaspatensis Linn.

Flowering and fruiting (21-8-1962), common. Mangalkanj, 14480.

Phyllanthus simplex Retz.

Flowering and fruiting (8-4-1962), common. Narmada river bank-Mandla, 14469.

Securinega virosa (Roxb. ex Willd.) Pax & Hoffm.

Flowering (21-8-1962), common. Mangalkanj, 14492.

ULMACEAE

Trema orientalis (Linn.) Bl.

Flowering (22-8-1962), common. Chiraidongri, 14704.

MORACEAE

Ficus cunia Buch.-Ham. ex Roxb.

Fruiting (18-8-1962), common. Chiraidongri R. F., 14452.

F. benghalensis Linn.

Fruiting (10-2-1961), common. South Mandla, 12265.

F. gibbosa Bl. var. **parasitica** (Koen.) King

Fruiting (28-11-1961), common. Khari R. F., 13450.

F. glomerata Roxb.

Fruiting (5-4-1962), common. Khari R. F., 14019.

F. lacor Buch.-Ham. var. **lambertiana** (Miq.) Sant.

Fruiting (4-4-1962), common. Khari R. F., 14004.

URTICACEAE

Girardinia zeylanica Decne.

Flowering (30-11-1961), very common. Khari R. F., 13498.

Pouzolzia pentandra Benn.

Flowering (18-8-1962), common. Chiraidongri R. F., 14425.

HYDROCHARITACEAE

Vallisneria spiralis Linn.

Flowering (7-4-1962), abundant. Narmada river, 14033.

ORCHIDACEAE

Acampe praemorsa (Roxb.) Blatter & McCann

Flowering (24-8-1962), common. Mandla, 14726.

Habenaria furcifera Lindl.

Flowering (18-8-1962), rare. Chiraidongri R. F., 14439.

H. latilabris Hook. f.

Fruiting (18-8-1962), common. Chiraidongri R. F., 14437.

H. plantaginea Lindl.

Flowering (22-8-1962), common. Chiraidongri, 14702.

Oberonia falconeri Hook. f.

Fruiting (25-8-1962), very common. Mandla, 14734.

Peristylus lawii Wt.

Flowering (11-8-1962), common. Khari R. F., 14389.

P. plantagineus Lindl.

Fruiting (11-8-1962), common. Khari R. F., 14391.

Rhynchosyilis retusa (Linn.) Bl.

Fruiting (25-8-1962), common. Mandla, 14733.

Vanda tessellata (Roxb.) Hook. ex G. Don

Flowering (30-11-1961), common. Khari R. F., 13504. Fruiting (8-2-1961), Bichhia, 12244.

ZINGIBERACEAE

Costus speciosus (Koen. ex Retz.) Smith

Flowering (11-8-1962), common. Khari R. F., 14394.

Curcuma amada Roxb.

Flowering (11-8-1961), very common. Khari R. F., 14370.

AMARYLLIDACEAE

Curculigo orchiodes Gaertn.

Flowering (11-8-1962), very common. Khari R. F., 14388.

TACCACEAE

Tacca leontopetaloides (Linn.) Ktze.

Fruiting (11-8-1962), very common. Khari R. F., 14397.

DIOSCOREACEAE

Dioscorea bulbifera Linn.

Flower buds (10-8-1962), common. Khari R. F., 14377.

D. hispida Dennst.

Flowering (14-8-1962), very common. Khari R. F., 14417.

LILIACEAE

Chlorophytum arundinaceum Baker

Flowering and fruiting (11-8-1962), rare. Khari R. F., 14395.

SMILACACEAE

Smilax zeylanica Linn.

Flowering (18-8-1962), common. Chiraidongri R. F., 14448.

COMMELINACEAE

Amischophacelus axillaris (Linn.) Rolla & Kamath.

Flowering (20-8-1962), very common. Chiraidongri, 14472.

A. cucullata (Roth) Rolla & Kamath.

Flowering (24-8-1962), very common. Mandla, 14718.

Commelina benghalensis Linn.

Flowering (21-8-1962), common. Mangalkanj, 14490.

Commelina hasskarlii Cl.

Flowering and fruiting (28-11-1961), common. Khari R. F., 13462.

Cyanotis cristata (Linn.) Schult. f.

Flowering (20-8-1962), common. Chiraidongri, 14474.

Murdannia malabarica (Linn.) Brueckner

Flowering (11-8-1962), common. Khari R. F., 14386.

ARACEAE

Colocasia esculenta (Linn.) Schott

Flowering (11-8-1962), common. Khari R. F., 14393.

Theriophonum indicum Engl.

Flowering (25-8-1962), very common. Mandla, 14729.

LEMNACEAE

Lemna paucicostata Heg.

In stagnant pools, common. Mandla, 14376.

POTAMOGETANACEAE

Potamogeton crispus Linn.

Flowering (7-4-1962), common. Narmada river-Mandla, 14032.

P. pectinatus Linn.

Flowering (7-4-1962), common. Narmada river-Mandla, 14034.

ERIOCAULACEAE

Eriocaulon dianea Fyson var. **richardiana** Fyson

Flowering (29-11-1961), common. Khari R. F., 13482.

E. cinerum R. Br.

Flowering (19-8-1962), common. Chiraidongri, 14453.

CYPERACEAE

Cyperus aristatus Rotth.

Flowering (20-8-1962), common. Chiraidongri, 14478.

C. iria Linn.

Flowering (19-8-1962), common. Chiraidongri, 14460.

C. pygmaeus Rotth.

Flowering (12-2-1961), common. Mandla, 12284.

C. rotundus Linn.

Flowering (6-2-1961), very common. Narmada river bank-Mandla, 12213.

C. tenuispica Steud.

Flowering (26-11-1961), common. Khari R. F., 13427.

Fimbristylis bis-umbellata Bub.

Flowering (12-2-1961), common. Mandla, 12286.

F. dichotoma (Linn.) Vahl

Flowering (19-8-1962), common. Chiraidongri, 14459.

F. monostachya Hassk.

Flowering (24-8-1962), common. Mandla, 14712.

GRAMINEAE

Brachiaria ramosa (Linn.) Stapf

Flowering (15-8-1962), common. Khari R. F., 14426.

Capillipedium huegelii (Hack.) Stapf

Flowering (29-11-1961), common. Khari R. F., 13475.

Chloris dolichostachya Lag

Flowering (27-11-1961), common. Khari R. F., 13436.

Coix gigantea Koen. ex Roxb.

Flowering and fruiting (24-8-1962), common. Mandla, 14720.

C. lachryma-jobi Linn.

Fruiting (27-11-1961), common. Khari R. F., 13438.

Cynodon dactylon (Linn.) Pers.

Flowering (12-2-1961), very common. Mandla, 12280.

Dactyloctenium aegyptium (Linn.) Beauv.

Flowering (19-8-1962), common. Chiraidongri R. F., 14455.

Dendrocalamus strictus Nees

Flowering and fruiting (15-2-1961), very common. Khari R. F., 12300.

Dichanthium annulatum (Forsk.) Stapf

Flowering (8-2-1961), common. Bichhia, 12247.

D. caricosum (Linn.) A. Camus

Flowering (28-11-1961), common. Khari R. F., 13466.

Digitaria adscendens (H. B. K.) Henr.

Flowering (2-12-1961), very common. Narmada river bank-Mandla, 13516.

D. stricta Roth ex Roem. & Schult.

Flowering (2-12-1961), common. Narmada river bank-Mandla, 13522.

Dinebra retroflexa (Vahl) Panz.

Flowering (3-12-1961), common. Narmada river bank-Mandla, 13525.

Echinochloa colonum (Linn.) Link

Flowering (20-8-1962), common. Chiraidongri, 14470.

Eragrostiella bifaria (Vahl) Bor

Flowering (10-8-1962), common. Khari R. F., 14378.

Eragrostis cilianensis (All.) Vignolo-Lutati

Flowering (2-12-1961), common. Narmada river bank-Mandla, 13520.

E. diarrhena (Schult.) Steud.

Flowering (3-12-1961), common. Narmada river bed-Mandla, 13528.

E. gangetica (Roxb.) Steud.

Flowering (27-11-1961), common. Khari R. F., 13440.

E. tenella (Linn.) Beauv. ex Roem. & Schult.

Flowering (26-11-1961), very common. Khari R. F., 13415.

Hackelochloa granularis (Linn.) Ktze.

Flowering (30-11-1961), common. Khari R. F., 13506.

Imperata cylindrica Beauv. var. **major** (Nees) C. E. Hubbard

Flowering (4-4-1962), common. Khari R. F., 13993.

Iseilema prostratum (Linn.) Anderss.

Flowering (28-11-1961), common. Khari R. F., 13464.

Melanocenchris jacquemontii Jaub. et Spach

Flowering (13-8-1962), very common. Khari R. F., 14407.

Ophiuros exaltatus (Linn.) Ktze.

Flowering (24-8-1962), common. Mandla, 14724.

Oplismenus compositus (Linn.) Beauv.

Flowering (28-11-1961), common. Khari R. F., 13461.

Paspalidium flavidum (Retz.) A. Camus

Flowering (10-8-1962), common. Khari R. F., 14379.

Paspalum scrobiculatum Linn.

Flowering and fruiting (28-11-1961), very common. Khari R. F., 13460.

Pennisetum pedicellatum Trin.

Flowering (27-11-1961), common. Khari R. F., 13432.

Polypogon monspeliensis (Linn.) Desf.

Flowering (4-4-1962), common. Khari R. F., 13992.

Saccharum spontaneum Linn.

Flowering (21-8-1962), common. Mangalkanj, 14491.

Setaria pallide-fusca (Schum.) Stapf et Hubb.

Flowering (12-2-1961), very common. Mandla, 12278.

ACKNOWLEDGEMENT

The authors wish to express their sincere thanks to late Dr. K. M. Sebastine, Regional Botanist, Botanical Survey of India, for his kind encouragement during the work.

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