

Report on the plants noted in the course of a trip from Luderitz Bay to Spencer Bay, January 10—21, 1974

E. R. ROBINSON and W. GIESS

During January, 1974, members of the staffs of the Desert Ecological Research Unit, Transvaal Museum, Windhoek Herbarium and Water Research Institute of the C.S.I.R. undertook a trip along the coast from Luderitz Bay to Spencer Bay. A collection of plants was made and general ecological data collected.

I. GENERAL OBSERVATIONS

(1) At the "Schadewald" and Agate Beach, near Luderitz Bay, *Salsola cf. nollothensis* forms dense dwarf shrub clumps on one/two metre hummocks. On sandy flats and between the hummocks *Stipagrostis subacaulis*, *S. hermannii* plants and *Mesembryanthemum hypertrophicum* occurred in large numbers.

(2) On the rocky ridges north of the "Schadewald" *Othonna furcata*, *Pelargonium* spp. and three species of *Salsola* (*Salsola aphylla*, *S. zeyheri* and *Salsola* sp.) were noted. At the time the collection was made the pelargoniums were in flower and *Othonna furcata* was in full foliage.

(3) *Stipagrostis sabulicola* formed tufts or low hummocks in the dune habitat, generally a few kilometres inland.

(4) At Anichab Pan — 40 kilometres from Luderitz Bay — the following species were noted or collected:

<i>Acanthosicyos horrida</i>	— only male plants being seen;
<i>Capparis hereroensis</i>	— with flowers and fruits;
<i>Eragrostis cyperoides</i>	— with seeds;
<i>Salsola nollothensis</i>	— moderately browsed;
<i>Salsola</i> spp.;	
<i>Scirpus dicicus</i> .	

(5) An extensive collection was made at Hottentot Bay, yielding seven species! On rock outcrops *Lycium decumbens* and a number of lichens were found, while the sandy talus slopes and shallow valleys were inhabited by species such as *Didelta carnosa* var. *tomentosa*; *Salsola nollothensis* — growing in exposed places, even to the first terrace above the beach; *Salsola* sp. which formed small, compact clumps where exposure to wind-blown sand was not as great; *Psilocaulon marlothii*; *Hypertelis angrae-pequenae* and *Drosanthemum luederitzii*.

(6) From Hottentot Bay to Saddle Hill collections were made only along the beach, thus only *Lycium decumbens*, *Salsola nollothensis*, *Stipagrostis sabulicola* and blue-green algae (“window algae”), under translucent rocks, were recorded.

(7) The commonest species at Saddle Hill were *Psilocaulon marlothii* and *Salsola* sp., but *Salsola nollothensis*, *Lycium decumbens*, *Othonna furcata* and *Hypertelis angrae-pequenae* were numerous in some localities.

(8) The Saddle Hill North area, which provides a number of different habitats (ridges, enclosed valleys, talus slopes and protected and exposed flat areas) was relatively rich floristically. *Salsola nollothensis* formed large hummocks and two pools of brackish water supported populations of *Ruppia maritima* (a submerged aquatic plant) and *Arthrocnemum dunense*. *Hypertelis angrae-pequenae* took advantage of the extra moisture which dripped from the roofs of buildings. In addition to these species, the following occurred:

<i>Asparagus capensis</i> var. <i>littoralis</i>	— on the north-west side of the mountain; flowers and new growth;
<i>Cotyledon schaeferana</i>	— in sand-filled crevices;
<i>Crotalaria schultzei</i>	— in sandy patches; flowering;
<i>Drosanthemum luederitzii</i>	— on rocky talus slopes;
<i>Eragrostis cyperoides</i>	— some plants had been heavily grazed;
<i>Eremothamnus marlothianus</i> ;	
<i>Juttadinteria</i> cf. <i>deserticola</i> ;	
<i>Mesembryanthemum hypertrophicum</i>	— seedlings in washes;
<i>Limonium membranaceum</i>	— in sandy areas; seedlings present;
<i>Lycium decumbens</i> ;	
<i>Othonna furcata</i>	— flowering;
<i>Osteospermum crassifolium</i>	— common on quartzite ridges;
<i>Pelargonium cortusifolium</i> ;	
<i>Tetragonia decumbens</i> ;	
<i>Trianthema hereroensis</i>	— from the dune area east of the camp; the most southerly locality for this species.

(9) Spencer Bay and Dolphin Head.

The latter is the type-locality of *Jensenobotrya lossowiana* and this succulent was very common in suitable localities. Most specimens were found on the lower, south-east slopes of the quartzite mountain. In addition to this species, the following were noted:

- Cotyledon schaeferana — common between rocks;
flowering;
- Drosanthemum luederitzii;
Eragrostis cyperoides — in sandy valleys;
Eremothamnus marlothianus;
Hypertelis angrae-pequenae;
Lebeckia multiflora var. parviflora — sand washes to the south;
Lycium decumbens;
Pelargonium cortusifolium;
Psilocaulon marlothii;
Salsola nollothensis;
Salsola sp.;
Tetragonia decumbens — growing on the mountain
above the *Otavi* wreck;
- T. reduplicata;
Zygophyllum cordifolium;

three species of crustose lichens, two fruticose lichens and one foliose lichen.

(10) The most northerly point reached was Spencer Bay North Head (about 140 km from Luderitz Bay). The area had recently received rain (indicated by the presence of *Monsonia ignorata* and *Stipagrostis hermannii*) and many species, including *Jensenobotrya lossowiana*, *Lebeckia multiflora* and *Othonna furcata* were in full bloom. A watercourse leading to the small bay at the northern end of the Head supports a variety of plant communities, including a *Sporobolus virginicus* — *Arthrocnemum dunense* one.

In addition to the species mentioned above, the following were found:

- Chrysanthemoides incana — found on the eastern side of
the rock outcrop forming the
Head;

Crotalaria schultzei;
Drosanthemum luederitzii;
Ectadium virgatum var. latifolium;
Eragrostis cyperoides;
Helichrysum obtusum var. namibense;
Limonium membranaceum;
Lycium decumbens;
Osteospermum crassifolium;
Pteronia spinulosa;
Psilocaulon marlothii;
P. namibense;
Salsola nollothensis;
Tetragonia decumbens;
Zygophyllum clavatum;
and lichens.

(11) Three species — namely *Drosanthemum luederitzii*, *Limonium membranaceum* and *Psilocaulon marlothii* were collected from Oyster Cliffs by Mr. Martin Jackson.

II. LIST OF PLANTS COLLECTED OR RECORDED

The system followed is that of MERXMÜLLER — Prodrum einer Flora von Südwestafrika, 1966-1972, J. Kramer, Lehre. In the cited collections G & R stands for Giess & Robinson. Species recorded but not collected are indicated by the note G & R obs. All species are housed in the S.W.A. Herbarium, Windhoek.

FAMILY MOLUGINACEAE

Hypertelis angrae-pequenae Friedr. — G & R 13176, 13194, 13208.

FAMILY AIZOACEAE

Drosanthemum luederitzii (Engler) Schwantes — G & R 13175, 13190, 13215.

Jensenobotrya lossowiana Herre — G & R 13168, 13207.

Mesembryanthemum hypertrophicum Dinter — G & R obs. (seedlings only found).

Psilocaulon marlothii (Pax) Friedr. — G & R 13164, 13182, 13213, 13223.

Psilocaulon namibense (Marl.) Friedr. — G & R 13186, 13209.

Trianthea hereroense Schinz — G & R 13202.

FAMILY TETRAGONIACEAE

Tetragonia decumbens Miller — G & R 13191, 13200.

Tetragonia reduplicata Welw. ex Oliver — G & R 13193.

FAMILY CHENOPODIACEAE

Arthrocnemum dunense Moss ex Adamson — G & R 13178, 13218.

Salsola aphylla L. fil. — G & R obs.

Salsola cf. *nollothensis* Aellen — G & R 13165, 13237.

Salsola zeyheri Moq. — G & R obs.

Salsola spp. — G & R 13174, 13180, 13181, 13189, 13221, 13228, 13229, 13230.

FAMILY CAPPARACEAE

Capparis hereroensis Schinz — G & R 13224, 13226.

FAMILY CRASSULACEAE

Cotyledon schaeferana Dinter — G & R 13204.

FAMILY FABACEAE

Crotalaria schultzei Harms — G & R 13199, 13201.

Lebeckia multiflora E. Meyer var. *parviflora* Schinz — G & R 13177.

FAMILY GERANIACEAE

Monsonia ignorata Merxm. & Schreiber — G & R 13187, 13203.

Pelargonium cortusifolium L'Hér. ex Aiton — G & R 13205.

FAMILY ZYGOPHYLLACEAE

Zygophyllum clavatum Schlechter & Diels — G & R 13184.

Zygophyllum cordifolium L. fil. — G & R 13206.

FAMILY PLUMBAGINACEAE

Limonium membranaceum R. A. Dyer — G & R 13171, 13179, 13214.

FAMILY PERIPLOCACEAE

Ectadium virgatum E. Meyer var. *latifolium* Schinz — G & R 13172.

FAMILY SOLANACEAE

Lycium decumbens Welw. ex Hiern — G & R 13166, 13211, 13220, 13222.

FAMILY ASTERACEAE

- Chrysanthemoides incana* (Burm. fil.) T. Norl. — G & R 13196.
Didelta carnososa (L. fil.) Aiton var. *tomentosa* (Less.) Roessler — G & R 13163.
Eremothamnus marlothianus O. Hoffm. — G & R 13195, 13210.
Helichrysum obtusum S. Moore var. *namibense* Merxm. & Schreiber — G & R 13198.
Osteospermum crassifolium (O. Hoffm.) T. Norl. — G & R 13183.
Othonna furcata (Lindley) Druce — G & R 13170.

Pteronia spinulosa Phillips — G & R 13192.

FAMILY POTAMOGETONACEAE

Ruppia maritima L. — G & R 13216, 13217.

FAMILY LILIACEAE

Asparagus capensis L. var. *litoralis* Suesseng. & Karl — G & R 13219.

FAMILY GRAMINEAE (POACEAE)

- Eragrostis cyperoides* (Thunb.) Beauv. — G & R 13167.
Sporobolus virginicus (L.) Kunth — G & R 13188.
Stipagrostis hermannii (Mez) de Winter — G & R 13169, 13185, 13197, 13212.
Stipagrostis sabulicola (Pilger) De Winter — G & R 13225.
Stipagrostis subacaulis (Nees) De Winter — G & R obs.

FAMILY CYPERACEAE

Scirpus dioicus (Kunth) Boeck. — G & R 13227.

A C K N O W L E D G E M E N T S

We should like to thank Dr. M. K. Seely for permitting us to participate in the trip.

S U M M A R Y

In the course of a trip from Luderitz Bay to Spencer Bay during January, 1974 42 species of plants were collected or noted. The type locality of *Jensenobotrya lossowiana* was re-located and this species was also found at Spencer Bay North Head (a distance of 15 km north of the only previously known locality). Localities where species were encountered as well as general observations are given.