

SÁNDOR ORBÁN

Studies on African Calymperaceae, V. Syrrhopodon species collected by
S. Lisowski in tropical Africa

Abstract: *Syrrhopodon lisowskii* Orbán spec. nov., *S. cryptocarpus*, *S. gardneri* and *S. armatus* are new to Guinea and *S. microblepharis* new to Zaire. About 50 new data to the African distribution of genus *Syrrhopodon*.

The author identified more than hundred *Syrrhopodon* specimens from the collection of S. Lisowski, who collected a very rich Calymperaceae material from Zaire, Uganda and Guinea. 7 *Syrrhopodon* species were found, 4 of them are species of subgenus *Syrrhopodon* (*S. gardneri*, *S. microblepharis*, *S. lisowskii* and *S. asper*), one is species of subgenus *Heliconema* (*S. cryptocarpus*) and two of them are species of the subgenus *Hyaloymabatae* (*S. gaudichaudii*, *S. armatus*).

The author has found, along several interesting data, an undescribed species. The author, comparing this specimen with other African materials, recognized it, as new, composed its diagnosis and named it (after the collector) *S. lisowskii*.

Moreover, this rich (*Syrrhopodon*) material gives many new data to the knowledge of the distribution of African *Syrrhopodon* species and completes the earlier published distribution data (DEMARET - LEROY 1947, ORBÁN 1981, SCHULZE-MOTEL 1975.).

The studied specimens are deposited in herbarium of Poznań and EGR.

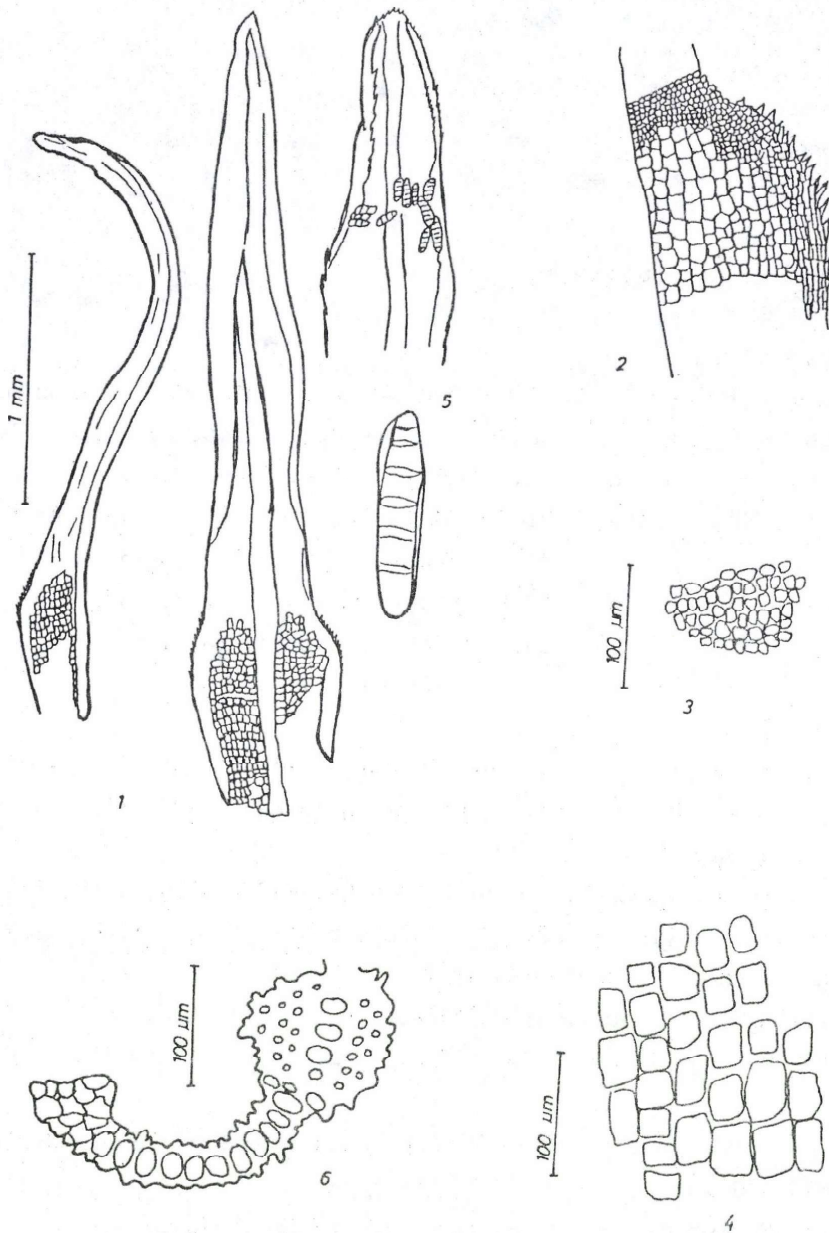
Syrrhopodon lisowskii Orbán spec. nov.

(Subgenus *Syrrhopodon*) Figs. 1-6.

Diagnosis: Dense caespitosus, Sordide viridis, inferne fuscus. Caulis ramosus, 1-2 cm longus, apice radiculosus, dense foliosus. Folia sicca arcuata val crispata, madida erecto-patentia, ligulato-lanceolata, obtusiuscula, 3-4 mm longa. Vagina obovata 1/5 folii longitudinis attingens. Cellulae limbidae vaginae 4-6 seriatae, unistratae, margines

vaginae ad partem mediam dentibus aculeatis longis hyalinis numerosis. Cellulae cancellinarum ad ventrem 8-10 seriatae, rectangulae versus limbidium quadratae vel subquadratae. Cancallina apice rotundata. Lamina lanceolata, limbo laminae polistrato geminatim serrato, marginibus involutis dentatis e medio subtubulosa. Cellulae chlorophyllosae laminae quadratae rectangulares vel hexagonales $9,1 \times 10,1 \mu\text{m}$, irregulares, magnae et acute pluripapillosae. Costa lata, superne et dorso aculeato papillosa, apice dilatato. Propogulae fusiformes, 6-7 septatae. Caetera ignota. Holotypus: "Zaire, Haut Shaba. Env. de Kasumbalesa. Colline Kibwe 1. 1400 m. leg. S. Lisowski 1971" (EGR).

In appearance similar to *Syrrhopodon aculeato-serratus*, forming dull green cushions of 1-2 cm height. Stem near the apex branching, covered by rhizoids. Upper leaves, when dry, are bent or curled, in wet condition straight patent, 3-4 mm long 0,5-0,6 mm broad, their margins strong incurved. The sheathing part is scarcely broader than the lower part of lamina, obovate occupies 1/5 of the whole leaf length and bordered by 4-6 cells of broad, unistratose limbidium. The margin of the sheathing part is armed by upward directed, acute teeth. The blade is ligulate-lanceolate, with short, mucronate apex, bordered by pluristratose margin. The border has double teeth becoming denser near apex. Chlorocysts small, rounded 4-6 angular, $9,1 \times 10,1 \mu\text{m}$ ornated by 1-2 large branched apiculata papillae on each side. Midrib vigorous, at base 73,7 μm , near apex 52,6 μm , dorsally and ventrally covered by spinose papillae. The cancellinae are arranged in 8-10 rows on each side of midrib quadrate or rectangular, shorter near the margin. Sporophyte unknown. Vegetative reproduction by clubshaped propagulae, which develop on the upper third of the midrib and leaf blade, forming small groups. The propagulae are 102,6 μm long, divided into 6-7 septae, similar to the propagulae of *Syrrhopodon insularum*. The *S. lisowskii* is a corticolous species, which grows in submontane rain forest. Observations: *Syrrhopodon lisowskii* differs in several aspects from the other species of Section *Syrrhopodon*. The most conspicuous feature are the strong incurved margin, the spinose midrib and the clubshaped propagulae, which develop on the upper third of the leaf blade.



Figs 1-6. *Syrrhopodon lisowskii* spec.nov. 1. leaf shapes and leaf apex; 2. sheathing part of leaf; 3. chlorocysts; 4. cancellinae; 5. propagula; 6. transversal section from the middle part of leaf blade (drawn by Gy. LÉGRÁDY from the type specimen)

New data to the African distribution of genus Syrrhopodon

Subg. Syrrhopodon

Sect. Syrrhopodon

1/ S. gardneri (Hook.) Schwaegr

Zaire - Haut - Shaba

- Plateau Marungu, Mare Mufutu, near Poste Luande 1900 m, 15.6.1969. No 3066, 2088, 3745, 2045, 2046, 5153, 6191.
- Plateau Kibara, Lusinga, 1720 m. 14.4. 1969. No 5254, 2192, 2971, 4288. 5195, 4916, 6454, 5116, 3692, 2971, 6457, 4288.
- Plateau Bianco, Mt. Termite, 1600 m, 23.2.1969. No 2324, 6585.
- Plateau Kundelungu, 1550-1670 m. No 4338, 5854, 3875, 5394, 6961, 2695, Poste Lualela: No 5347, 6423, 6670.
- riv. Luando: No 3378, Lofoi: No 6436, 7156, Luansa: no 44 36, 5785, 7119.
- riv. Marungu, Kariki, mare Lunangwa, 2300 m, No 2522, 4434, 3826; Pepa: No 7115; vill. Lusinga: No 6786, 4979; vill. Mukonga: No 5859.
- 25 km from Lubumbashi, Muhulu: No 5306, 7177, 4255, 5219, 4878, 1250, 5733, 7164, 7308, 5731, 4906, 5844; Luiswishi: No 2239.
- Reg. Sakania, Kabunda: No 5277.
- Plat. Muhiba, Kausimba: No 4946.
- Rohthe Kisangani: No 52485, 45536.

Haut-Zaire, Ituri, Nduye, Maitatu, Mt Balikata: No: 50665, 50661, 44803, 50478.

- South-Region of Tshapa, village Lifera: No: 50704.

Guinea, Reg. Macenta

- Massiv Ziama: No 127, 368, vill. Zoubrouma: No 126, 241, 245/a, 388.

- Dalaba, Massiv Fonta-Djallonu: No 6715, 244, 6708, 4478, 4774.
New to Guinea.

2/ Syrrhopodon microblepharis P. Vard.

- Zaire, Haut-Zaire. Ituri, Maitatu, Mt. Balikata 1100 m. 12.4.1977.
No 50465. New to Zaire.

Sect. Crassimarginatae

3/ Syrrhopodon asper Mitt.

Zaire, Haut-Shaba Lofoi: No 6436 5.1.1969.

- Plat. Marungu vill. Lusinga, 1900 m, 22.2.1970. No 6787.
- Lumumbashi, 1200 m, 10.12.1968., No 5733, 4906,
- Plateau Kibara, Lusinga, 1720 m, 14.4.1969., 2968.

Subg. Heliconema

4/ Syrrhopodon cryptocarpos doz. et Molk.

- Guinea, Reg. Macenta, near Massadou 26.4.1963., No 240, 242.
New to Guinea.

Susbg. Hyalolymbatae

Sect. Crispati

5/ Syrrhopodon gaudichaudii Mont.

Guinea, Region Beyla, Simandou, 14.4.1963. No 233.

- Maceta, 25.11.1962., No 126, 368.
- Region Mascenta, Massiv Ziama, Zoubrouma, 6.1.1965., No 237.

Zaire: Haut-Zaire, Ituri, Nduye, Mt. Aykundakakawa, 1050 m,
11.4.1977. No 50419.

Uganda: Ruenzori, valléy Bujuku, near Bigo. Ericetum. 27.1.1974.
No 2375.

Sect. Cavifolii

6/ Syrrhopodon armatus Mitt.

Zaire, Haut-Zaire Kisangi, near Bengamisa, 1.5.1975., No 40332.

Guinée,-Reg. Macenta, Massiv Ziama, vill. Zoubrouma,
6.1.1963. No 245.

- Near Macenta, "Montague Magnetique" No 253. New to Guinea.

References

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