STUDIES ON THE FLORA OF THE GUIANAS 4

A NEW SPECIES OF APINAGIA (PODOSTEMONACEAE) AND A KEY TO THE APINAGIA SPECIES IN SURINAME

G. DEN HOLLANDER and C. C. BERG

Instituut voor Systematische Plantkunde, Postbus 80.102, 3508 TC Utrecht

During a study of the Podostemonaceae for the Flora of Suriname a specimen of *Apinagia* was found which could not be placed in one of the species recognized by van Royen (1951, 1953, 1954). The specimen forms part of a mixed collection mainly consisting of *Mourera fluviatilis* Aubl. but also containing a specimen of *Apinagia longifolia* (Tul.) van Royen (sub Irwin et al. 55346A in K and NY).

Apinagia petiolata den Hollander spec. nov.

Herb ad circ. 30 cm alta, caule ramisque distinctis. Lamina elliptica, ad 16 × 4 cm, pinnatilobata, petiolo ad 3 cm longo. Pedicellus fructifer ad 4 cm longus; spathella ad 1.5 cm longa; tepala 6 ad 9; stamina 6 ad 10, sicut tepala in verticillo completo posita.

Plant up to 30 cm high, with distinct stem and relatively short lateral branches; internodes terete or slightly winged, 0.5–3 cm long, 0.4–1 cm in diameter. Leaves in outline more or less distinctly elliptic, up to 16 cm long, up to 4 cm wide, membranaceous, pinnatilobate, lobes triangular to rectangular; base cuneate, with a distinct up to 3 cm long petiole; venation pinnate, main veins prominent beneath; upper surface, especially in young leaves, with numerous tufts of up to c. 5 mm long fila. Flowers pale pink, in axillary, extra-axillary or terminal inflorescences; pedicels up to c. 4 cm long, slightly winged; spathella up to c. 1.5 cm long, thus enveloping the pedicel for less than half of its length; tepals 6–9, in a complete whorl, lanceolate, up to c. 0.7 mm long, acute; stamens 6–10, in a complete whorl, filaments up to c. 5.5 mm long, anthers up to c. 2 mm long, introrse, thecae obtuse at base and apex; ovary ellipsoid, c. 3 × 2 mm, styles filiform, up to 1.5 mm long, basally connate; valves of the fruit with 3 ribs, the middle one extending to the apex, the two others shorter.

TYPUS: *Irwin et al. 55346B*, Suriname, Lucie River, 2 km below the confluence of the Oost River, 3 Sep 1963 (NY).

The new species appears to be related to *Apinagia longifolia* (Tul.) van Royen. The differences between the two species are given in *table 1*.

The species of *Apinagia* currently known from Suriname may be keyed out as follows:

Table 1. Main differences between *Apinagia petiolata* and *Apinagia longifolia*.

	A. petiolata	*A. longifolia*
Leaf	up to 16 × 4 cm, elliptic	up to 35 × 5 cm elliptic to rhombiform
Petiole	up to 3 cm long	absent or up to 1.5 cm long
Pedicel	up to 4 cm long	up to 8 cm long
Spathella	up to 1.5 cm long	up to 2.5 cm long
Tepals	6–9	10–17
Stamens	6–10, normally 8–9	10–30, normally more than 12

KEY TO THE SPECIES OF APINAGIA OF SURINAME

1.a. Ovary (in well-developed flowers) shortly stipitate . *A. divertens* Went
b. Ovary not stipitate 2
2.a. Lamina in outline narrowly elliptic to elliptic, at least the lower part entire to faintly pinnatilobate, or leaves absent and plant thalloid 3
b. Lamina in outline subrectangular, subrhombiform, subtriangular, or if narrowly elliptic to elliptic, then in the lower part distinctly lobed or incised 9
3.a. Leaves absent, or if present, then up to c. 4 mm long; plant thalloid . . . . . *A. nana* Went
b. Leaves present and longer than 1 cm 4
4.a. Leaves without a distinct marginal vein 5
b. Leaves with a distinct marginal vein, apex acute or with a few furcate segments, tufts of fila lacking, or if present, then scattered over the leaf . . . . . *A. treslingiana* (Went) van Royen
5.a. Leaf apex of at least some of the apical leaves divided into narrow segments, tufts of fila mostly present, arranged in two more or less distinct rows . . . . . *A. staheliana* (Went) van Royen
b. Leaf apex entire, tufts of fila, if present, scattered over the leaf . . . 6
6.a. Leaves at least in the upper part distinctly pinnatilobate to pinnatipartite 7
b. Leaves in the upper part entire to sinuate 8
7.a. Stamens 6–10; pedicel up to c. 4 cm long; petiole up to c. 3 cm long . . *A. petiolata* den Hollander
b. Stamens 10–30; pedicel up to 8 cm long; lamina sessile or with a petiole up to c. 1.5 cm long . . . . . *A. longifolia* (Tul.) van Royen
8.a. Flowers solitary, mainly terminal . . . . *A. hulkiana* (Went) van Royen
b. Flowers in branched inflorescences . . . *A. flexuosa* (Tul.) van Royen
9.a. Lamina, or at least its lobes and/or their apices, divided into many filiform or narrowly vittiform segments 10
b. Lamina, its lobes, and their apices normally not divided into filiform or narrowly vittiform segments, occasionally the lobes or their apices furcate 19

10.a. The whole lamina divided into filiform to narrowly vittiform segments 11
b. Lamina with primary divisions thalloid, filiform to narrowly vittiform segments only at the apices of the primary divisions 14
11.a. Lamina repeatedly furcate 12
b. Lamina basically pinnately incised 13
12.a. Valves of the fruit with 3 distinct, long ribs and thickened margins . . . . . *A. penicillata* (van Royen) van Royen
b. Valves of the fruit without or with 3 short ribs . . . . . *A. richardiana* (Tul.) van Royen
13.a. Pinnae of the lamina repeatedly furcate, segments filiform . . . . . *A. guyanensis* (Pulle) van Royen
b. Pinnae of the lamina vittiform, at the apices with filiform segments . . . . . *A. richardiana* (Tul.) van Royen
14.a. Tufts of fila mostly present, arranged in two more or less distinct rows, stamens c. 8–25 (or more?) . . . . . *A. staheliana* (Went) van Royen
b. Tufts of fila lacking, or if present, then scattered over the leaf; stamens at most 12 15
15.a. Internodes c. 0.5–3.5 cm long 16
b. Internodes up to 0.5 cm long 17
16.a. Stamens c. 8–12 . . . . . *A. staheliana* (Went) van Royen
b. Stamens c. 2–7 17
17.a. Tepals c. 8–19 . . . . . *A. imthurii* (Goebel) van Royen
b. Tepals c. 2–6 18
18.a. Filaments of the stamens becoming more than twice as long as the ovary . . . . . *A. versteegiana* (Went) van Royen
b. Filaments of the stamens becoming less than twice as long as the ovary . . . . . *A. marowynensis* (Went) van Royen
19.a. Filaments of the stamens becoming more than twice as long as the ovary . . . . . *A. versteegiana* (Went) van Royen
b. Filaments of the stamens becoming less than twice as long as the ovary 20
20.a. Stamens c. 2–12 . . . . . *A. richardiana* (Tul.) van Royen
b. Stamens at least 10, in most flowers more than 12 . . . . . *A. longifolia* (Tul.) van Royen

Note: *A. nana* is regarded as distinct from *A. pilgeri* Mildbraed (cf. van Royen, 1951)

ACKNOWLEDGEMENTS
The authors are much indebted to Dr. K. U. Kramer (Zürich) for correcting the English text and contributing the Latin diagnosis. The drawing was prepared by Mr. T. Schipper.

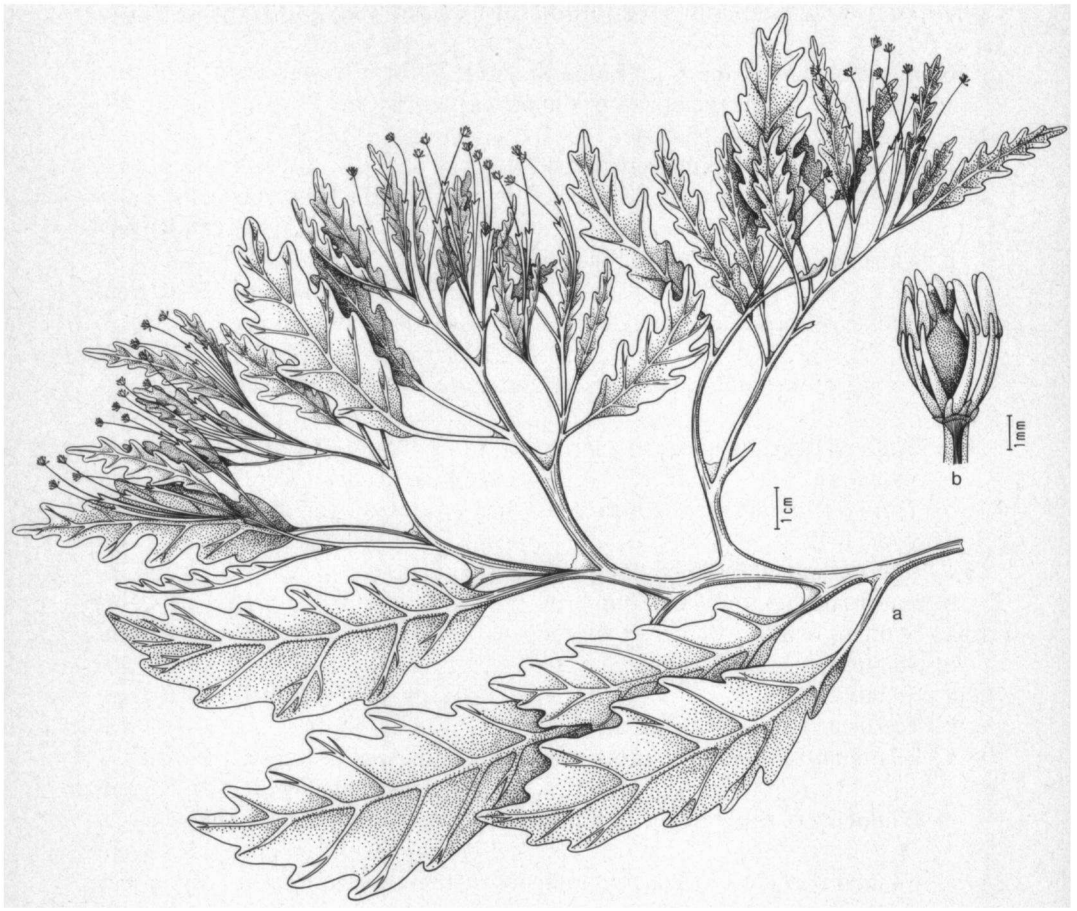

Fig. 1. *Apinagia petiolata. a. habit; b. flower (from Irwin et al 55346B).*

REFERENCES

ROYEN, P. VAN (1951): *The Podostemonaceae of the New World I.* pp. 150, tt. 16. Bergen op Zoom.
— (1953): The Podostemonaceae of the New World. II. *Acta Bot. Neerl.* 2(1): 1–21.
— (1954): The Podostemonaceae of the New World. III. *Acta Bot. Neerl.* 3(2): 215–263.