

During the course of a revision of the genera *Polygonum* L., *Bilderdykia* Dumort and *Reynoutria* Houtt. in southern Africa, it was found that numerous herbarium specimens filed under *Polygonum salicifolium* Willd. were wrongly identified.

In *P. salicifolium* the perianth is eglandular and pink to purple and the nut is always trigonous. In contrast, all the wrongly identified specimens under *P. salicifolium* had a green, glandular punctate perianth and a lenticular nut. Initially these specimens were thought to belong to a new taxon, but further studies showed that they belong to *P. hydropiper* L.

Studies were undertaken to establish whether other characters could be used to distinguish between the two taxa.

In all the investigated material it was found that *P. hydropiper* possesses a glandular perianth and lenticular fruit and *P. salicifolium* an eglandular perianth with a trigonous fruit (Figures 3 & 4). Only three other characteristics may be of some value in separating the two

species. The fruit is no longer than 3 mm in *P. salicifolium* but always longer than 3 mm in *P. hydropiper* (Figures 3 & 4). The leaves of *P. salicifolium* are usually no wider than 2 mm whereas those of *P. hydropiper* are mostly broader than 2 mm (Figure 4). The width/length ratio of *P. salicifolium* is mostly less than 0,18 and that of *P. hydropiper* more than 0,19.

***Polygonum hydropiper* L.**, Species plantarum 1: 361 (1753); Meisn.: 109 (1856); Benth. & F. Muell.: 269 (1870); Steward: 58 (1930); Webb & Chater: 79 (1964); Ohwi: 411 (1965); Lai: 271 (1976). Type: from Europe (collector and herbarium unknown).

*Persicaria hydropiper* (L.) Spach: 536 (1841); Britton & Brown: 670 (1913), Spach non Opiz.

Erect or basally decumbent slender annual, up to 1 m tall; stems simple or branched, glabrous. *Ocreae* tubular, membranous, brown, up to 20 mm long, thinly covered with close ascending, bristly hairs and terminally fringed with short erect-patent stiff bristles, 10,0–20,0 mm long (Figure 5B). *Leaves* sessile; blade lanceolate, (5–)60–120(–150) × (5–)14–27(–32) mm, apically

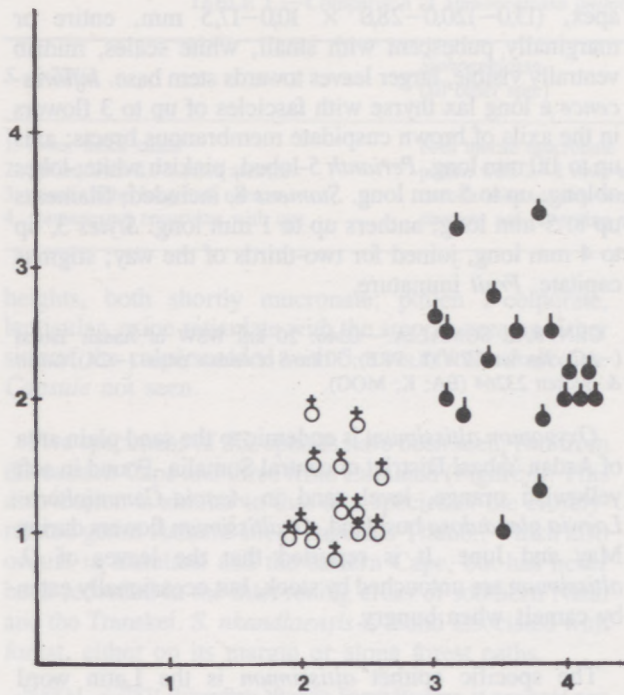


FIGURE 3.—A scatter diagram based on the width of the leaves in mm (X axis) and length of fruit in mm (Y axis) of *Polygonum salicifolium*, ○; and *P. hydropiper*, ●. ● = glandular perianth, ○ = eglandular perianth, ● = lenticular fruit, ○ = trigonous fruit.

acute, cuneate at the base (Figure 5A), glandular-dotted on the lower surface, more or less scabrous at the margins. *Inflorescence* a slender terminal thyrses up to 120 mm long, often nodding at the ends of the stem branches. *Bracts* glabrous, truncate or truncate-rounded, reddish brown, with a terminal fringe of rigid bristles about 1 mm long. *Perianth* 4–5-lobed; lobes greenish white, 3–5 mm long (Figure 5C & D), brownish glandular-dotted. *Stamens* 5.

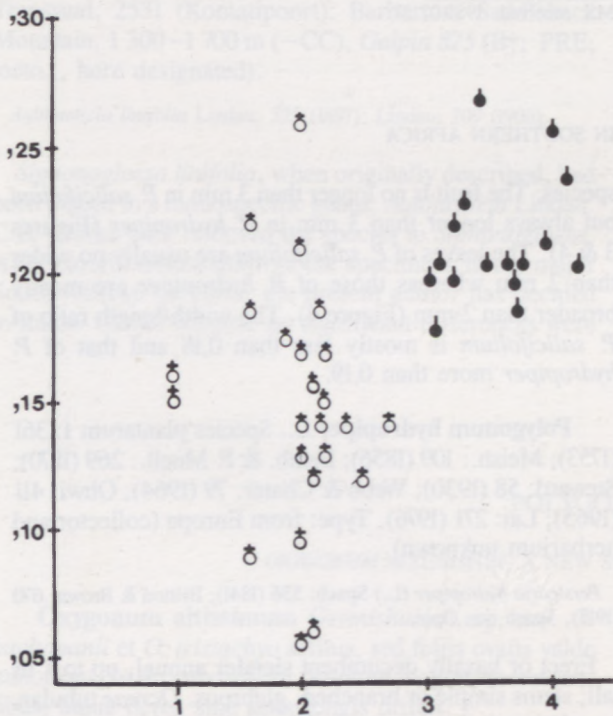


FIGURE 4.—A scatter diagram based on the width and length ratio of the leaves (X axis) and length of fruit in mm (Y axis) of *Polygonum salicifolium*, ○ and *P. hydropiper*, ●. ● = glandular perianth, ○ = eglandular perianth, ● = lenticular fruit, ○ = trigonous fruit.



FIGURE 5.—*Polygonum hydropiper* L. A, habit, × 1; B, ocrea, × 1; C, flower, × 5; D, flower, longitudinal section, × 5; E, fruit, × 6.

*Styles* 2, united for half their length. *Nut* lenticular, dark brown, finely granulate, 3.0–4.5 mm long (Figure 5E).

A native of Europe, it is now widely distributed in the temperate and subtropical regions of the world. In southern

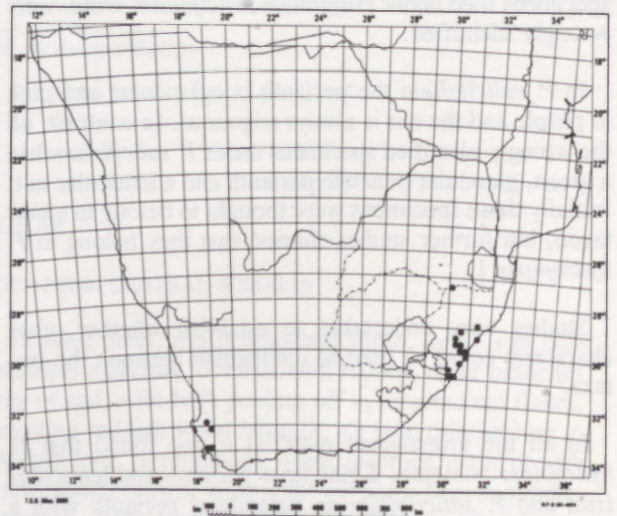


FIGURE 6.—Distribution of *Polygonum hydropiper* L.

Africa this species is found in the south-eastern Transvaal, Natal and south-western Cape Province (Figure 6). It occurs in damp places, often growing in water, and on stream and river banks and on the edge of dams.

The disjunct distribution may be attributed to the fact that seeds could have been transported to the main harbours of southern Africa, and spread from there. It flowers from December to April.

Voucher specimens: *Codd 6944* (PRE); *Esterhuysen 20155* (BOL); *Germishuizen 1640, 1858* (PRE); *Ward 5830* (NU, PRE).

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