Annual or perennial herbs. Leaves simple, usually all in a basal rosette or sometimes (in perennials) cauline, spirally arranged, venation parallel; stipules 0. Inflorescence a dense to lax spike; peduncle usually longer than inflorescence. Flowers bisexual, regular, small, bracteate. Calyx 4-lobed, membranous, imbricate. Corolla 4-lobed. Stamens 4, inserted on corolla tube. Ovary 2–4-locular, superior; style 1, filiform, long, often exserted; ovules 1–many in each locule. Fruit a circumscissile capsule. Seeds mostly 2–4 per capsule (± 15–25 in P. major), mostly ± boat-shaped with ventral hilum.

A family of three genera, only one of which is represented in southern Africa.

8116000 PLANTAGO

Plantago L., Species plantarum edn 1: 112 (1753); T.Cooke: 388 (1910); Pilg.: 73 (1937); Levyns: 729 (1950); Verde.: 1 (1971); R.A.Dyer: 601 (1975). Type: P. major L.

Description as for family.

A cosmopolitan genus of over 250 species, of which 12 and one variety occur in southern Africa. Five species are restricted to the Flora area, another five are introduced and two are weedy plants of such wide distribution as to make it impossible to determine whether they are indigenous or naturalised here. Two species of doubtful occurrence in the Flora area are appended to this treatment.

Note: in the descriptions and notes below, the word 'scape' is used to mean the whole inflorescence including both peduncle and spike.

1a Leaves petiolate, or at least narrowed towards base:
   2a Leaves broad (up to 4 times as long as wide):
      3a Seeds 15–25 per capsule, leaves with scattered hairs, usually drying brownish
         1. P. major
      3b Seeds 2–4 per capsule, leaves glabrous or with isolated hairs, usually drying brown to almost black
         3. P. longissima
   2b Leaves narrow (more than 4 times as long as wide):
      4a Spike less than half as long as peduncle
         5a Leaves densely shaggy
            6a Leaves distinctly cauline:
               7a Bracts long, conspicuous, projecting well beyond the flowers, leaves not succulent
                  12. P. aristata
               7b Bracts short, inconspicuous, not projecting beyond the flowers, leaves semi-succulent
                  6. P. crassifolia
            6b Leaves all in a basal rosette
               8a Leaves lorate, margins with a few small teeth
                  9a Leaves glabrous
                     4. P. remotiflorus
                  9b Leaves villous
                     8. P. rhodo sperma
               8b Leaves linear-pinnatifid or linear-filiform:
                  10a Leaves pinnatifid, spike over 20 mm long
                     5. P. coronopus
                  10b Leaves linear-filiform, not pinnatifid; spike less than 20 mm long
                     11a Plants hirsute
                        11. P. cajafra
                     11b Plants glabrous
                        2. P. bigelovii

1. P. major L., Species plantarum edn 1, 112 (1753); Decne.: 694 (1852); T.Cooke: 388 (1910); Pilg.: 41 (1937); Levyns: 729 (1950); Verde.: 2 (1971). Type: perhaps Sweden, LINN 144.1 (LINN).

P. dregeana Decne.: 695 (1852); T.Cooke: 389 (1910). Type: Cape, near Nieuwjaarsfontein, Drege s.n. (P).

Perennial herbs, very variable. Leaves in a basal rosette, elliptical, ovate or obovate, 70–400 × 24–125 mm, glabrous, rarely pubescent; petiole flattened, 25–200 mm long. Scapes several per rosette, 150–300 mm long, spikes 40–135 mm long. Bracts usually glabrous, sometimes pubescent, apices acute. Calyx lobes elliptical, ± 2 × 1 mm, winged, acute. Corolla lobes deltoid, ± 1.2 × 0.7 mm, acute. Capsule ellipsoid, ± 3 × 2 mm (Figure 1D). Seeds rounded-tetrahedral, 15–25 per capsule, black to dark brown, 1.0–1.2 × 0.6–0.9 mm, hilum scar at apex, small. Flowering time: from spring to autumn.

A common weed of moist, sunny places; indigenous or naturalised throughout most of the world. Known from Northern Province to Western Cape and in Namibia (Figure 2).

Vouchers: Archibald 4947 (PRE); Galpin 2945 (PRE); Mogg 4838 (PRE); Muir 1911 (PRE); Thode A1185 (K. NH. PRE).

This plant is easily confused with P. longissima (no. 3), but may be distinguished from that species by its many-seeded capsules. Leaves of this species usually dry olive-green and have scattered hairs, whereas those of P. longissima usually dry various shades of brown to black, and are glabrous or have only isolated hairs.

Plants of P. major are occasionally seen on sale in the herb sections of nurseries in South Africa. The medicinal uses of this species are similar to those of P. lanceolata; Watt & Breyer-Brandwijk (1963) and Roberts (1983) may be consulted for further details.

2. P. bigelovii A. Gray in Whipple, Exploration and surveys for a railroad route from the Mississippi River to the Pacific Ocean 4: 117 (1857); Pilg.: 73 (1937); Levyns: 730 (1950). Type: California, Benicia, Bigelow s.n. (GH).

Annual herbs. Leaves in a basal rosette, linear to filiform, 30–40 × 0.3–0.6 mm, glabrous, amplexicaul. Scapes few per rosette, 30–150 mm long; spikes 1.5–5.0 mm long, few-flowered. Bracts pilose, obtuse. Calyx lobes elliptic, ± 1.5 × 1.3 mm, winged, subobtuse.
Corolla lobes deltoid to elliptic, $\pm 0.6 \times 0.4$ mm, acute. Capsule ellipsoid, $\pm 3$ mm long. Seeds not seen.

A western United States species, recorded once from the Cape Peninsula by Levyns (Figure 3).

Voucher: Levyns 5092 (BOL, K).

This is the smallest species of Plantago occurring in our area. While it would be difficult to confuse it with any other southern African species of Plantago except P. cafra (no. 11), it bears a striking superficial resemblance to a species of Kyllinga (Cyperaceae). The most striking difference between this species and P. cafra is that in this species all parts are glabrous, whereas in the latter the peduncle in particular (but also the leaves) is covered with brownish hairs.


P. longissima Decne. var. densiuscula Pilg.: 82 (1937). Type: Mpumalanga, near Lydenburg, Wilms 1247 (B).

Perennial herbs. Leaves cauline, often with woolly bases, elliptical, ovate or obovate, 190–725 $\times$ 45–150 mm, glabrous; petiole flattened, 50–400 mm long. Scape one per rosette, 0.40–1.12 m long; spikes 0.15–0.50 m long. Bracts glabrous, apices acute. Calyx lobes elliptical, $\pm 2.5 \times 1.0$ mm, winged, acute. Corolla lobes deltoid, $\pm 2.0 \times 1.2$ mm, acute. Capsule ellipsoid, $\pm 3.0 \times 1.5$ mm.

FIGURE 2.—Distribution of Plantago major in southern Africa.

mm. Seeds rounded-tetrahedral, 2–4 per capsule, black to dark brown, 1–2 x 0.6–0.8 mm, hilum scar at apex, small. Flowering time: from October to February.

Endemic in Eastern Cape, KwaZulu-Natal, Mpumalanga, Gauteng and Northern Province (Figure 4).

Vouchers: Moss 8718 (BM); Phillips 570 (PRE); Rodin 3854 (K, MO, PRE); Rudatis 783 (PRE, STE).

This species is often confused with P. major (no. 1); see there for distinguishing characters.

4. P. remota Lam., Tableau encyclopédique et méthodique 1: 341 (1791); Decne.: 721 (1852); T.Cooke: 391 (1910); Pilg.: 96 (1937); Levyns: 730 (1950). Type: Cape of Good Hope, Sonnerat s.n. (P).

P. capensis Thunb.: 29 (1794); Thunb.: 148 (1823). Type: Cape of Good Hope, Thunberg 3503 (UPS. holo.; PRE, fiche).

Perennial herbs. Leaves in a basal rosette, linear to lanceolate or oblanceolate, 50–210 x 2–9 mm, glabrous, amplexicaul. Scapes few per rosette, 200–400 mm long; spikes 30–125 mm long. Bracts glabrous, apices acute to acuminate. Calyx lobes narrowly deltoid, ± 3 x 1 mm, narrowly winged, acute. Corolla lobes deltoid, ± 1.4 x 0.8 mm, acute. Capsule ellipsoid, ± 2 x 1 mm. Seeds boat-shaped, 2–4 per capsule, black to dark brown, 2.2–3.0 x 1.0–1.9 mm, hilum scar in a ventral depression almost as long as seed. Flowering time: throughout the year.

Endemic to the Western and Eastern Cape (Figure 4).

Vouchers: Britten 6485 (PRE); Dyer 2400 (PRE); Esterhuyzen 15454 (BOL, PRE); Glass 443 (NBG); Wolley Dod 2403 (BM, BOL, K, PRE).

This species is similar to P. crassifolia (no. 6) in that it has semi-succulent, linear leaves, but differs from that species in having all the leaves basal and glabrous except for a tuft of copper-coloured woolly hairs at the base, and in its generally more inland distribution.

5. P. coronopus L., Species plantarum 115 (1753); Decne.: 732 (1852); Pilg.: 126 (1937); Levyns: 730 (1950); Chater & Cartier: 40 (1976). Lectotype: Herb.

FIGURE 3.—Distribution of Plantago bigelovii, •; and P. virginica, ▲, in southern Africa.

Burser 10: 89 (UPS) (fide C. Jarvis & L.L. Dreyer pers. comm.)

Annual herbs. Leaves in a basal rosette, appressed-horizontal, linear-pinnatifid, 40–200 x 2–5 mm, pubescent, amplexicaul. Scapes many per rosette, 70–320 mm long; peduncles horizontal below, erect above; spikes erect, 20–120 mm long. Bracts glabrescent, apices acute. Calyx lobes narrowly elliptic, ± 2 x 1 mm, acute. Corolla lobes deltoid, ± 1.0 x 0.7 mm, subacute. Capsule ellipsoid, ± 2.5 x 2.0 mm. Seeds rounded-tetrahedral, 2–4 per capsule, greenish brown, 1.0–1.3 x 0.6–0.7 mm, hilum scar at apex, small. Flowering time: September to December.

A cosmopolitan weed, introduced from Europe; in our area only known with certainty from the Western Cape, where it is very common, if not locally dominant in small areas, on paths leading to beaches, picnic areas and other disturbed areas from Elands Bay on the west coast to Pearly Beach near Bredasdorp, and possibly further afield. Flanagan 1377 (PRE) from near Komga (Eastern Cape) probably belongs here (Figure 5).

Vouchers: Glen 1518 (PRE); Moss 9082 (J); Oliver 3718 (PRE); Sulter 8516 (BOL, NBG); Walgate 617 (BOL, NBG).

FIGURE 4.—Distribution of Plantago longissima, ▲; and P. remota, ▲, in southern Africa.
This species is immediately distinguishable from all others in southern Africa by its linear-pinnatifid leaves.


*P. carnosa* Lam.: 342 (1791); Decne.: 729 (1852); T.Cooke: 393 (1910); Levyns: 730 (1950). Type not cited.

*P. litoraria* Fourc.: 96 (1934). Type: Western Cape, Eerste River, Fourcade 1961 (BOL).

Perennial herbs or suffrutices. Leaves cauline, linear to narrowly lanceolate, 30–260 × 4–10 mm, pubescent, amplexicaul. Scapes few per rosette, 90–300 mm long; spikes 30–75 mm long. Bracts with scattered villi, apices subacute. Calyx lobes elliptical, ± 2.5 × 1.5 mm, acutely winged, subacute. Corolla lobes deltoid, ± 1.5 × 1.0 mm, subacute. Capsule ellipsoid, ± 3.0 × 1.5 mm. Seeds boat-shaped, 2–4 per capsule, brown, 1.8–2.3 × 0.9–1.2 mm, hilum scar in a central depression about half as long as seed. Flowering throughout the year, mostly in summer.

Two varieties can be distinguished:

1a Leaves long and narrow, rarely less than 100 mm long . . .

1b Leaves short and wide, rarely over 50 mm long . . . 6a var. *crassifolia*

6a. var. *crassifolia*.

Description as for species.

Occurs in the Mediterranean Basin and in southern Africa, where it is known from the Western and Eastern Cape (Figure 6).

Vouchers: Acocks 17610 (PRE); Boucher 3004 (PRE); Bourke 698 (NBG, PRE); Taylor 3178 (PRE, STE); Wells 2678 (GRA, K, PRE).

This species is usually a beach-dweller, in contrast with *P. remotta* (no. 4), which usually occurs in more inland situations. In addition to the distinctions mentioned under that species, the present one may be distinguished from it by having entire or very sparsely, coarsely dentate leaf margins. In *P. remotta* the leaf margins are sparsely minutely dentate.


*P. thunbergii* Poir.: 431 (1816). Type: Jacquin, Hort. Schoenbr. 3: t. 258 (PRE, iconotype).

Plants smaller in all parts than the typical variety. Leaves more densely roseulate.

Occurs in the Western and Eastern Cape (Figure 6).

Vouchers: Bayliss 4182 (NBG), H. Hall s.n. in NBG97433 (NBG); Schlechter 10551 (BOL, GRA).

7. *P. virginica* L., *Species plantarum* edn 1, 113 (1753); Michx.: 94 (1803); Decne.: 722 (1852); Pilg.: 213 (1937); Rahn: 154 (1974). Type: probably North America, *Kalm* s.n. in LINN144.8 (LINN).

Perennial herbs. Leaves in a basal rosette, obovate or narrowly spatulate, 33–220 × 9–40 mm, densely villous; petiole flattened, 15–50 mm long. Scapes few per rosette, 170–360 mm long; spikes 90–200 mm long. Bracts glabrous, apices acute. Calyx lobes elliptical, ± 2 × 1 mm, subacute. Corolla lobes deltoid, ± 2.5 × 1.5 mm, acute. Capsule ellipsoid, ± 3.5 × 2.0 mm. Seeds narrowly tetrahedral, 2–4 per capsule, greenish brown, 1.4–1.9 × 0.7–1.0 mm, hilum scar at apex, small. Flowering time: throughout the year, mainly in summer.

Originally introduced from North America (see Rahn 1974 for the indigenous distribution of this species), *P. virginica* is now a widespread weed in southern Africa (Figure 3).

Vouchers: Acocks 11450 (NH, PRE); Balsinhas 2905 (K, MO, PRE); Codd 6455 (PRE); Jacobs 2147 (NBG, PRE); Strey 3033 (K, PRE, SRGH).

This species is usually a beach-dweller, in contrast with *P. remotta* (no. 4), which usually occurs in more inland situations. In addition to the distinctions mentioned under that species, the present one may be distinguished from it by having entire or very sparsely, coarse-
8. *P. rhodosperma* Decne. in DC., Prodromus 13: 722 (1852); Pilg.: 217 (1913); Pilg.: 12 (1928); Pilg.: 214 (1937); Rahn: 134 (1974). Type: Texas, *Anon. s.n. in herb. De Candolle (G)*.

Annual herbs. Leaves in a basal rosette, linear, 115–120 × 5–8 mm, densely villous, amplexicaul. Scapes many per rosette, 50–300 mm long; spikes 10–180 mm long. Bracts villous, apices acute. Calyx lobes narrowly elliptic, ± 2 × 1 mm, subacute. Corolla lobes broadly deltoid, ± 2.0 × 1.7 mm, acute. Capsule ellipsoid, ± 3 × 2 mm. Seeds boat-shaped, 2–4 per capsule, greenish brown, 1.4–1.9 × 0.6–1.0 mm, hilum scar in a ventral depression almost half as long as seed. **Flowering time:** December.

This species was introduced from North America (see Rahn 1974 for indigenous distribution); in our area it is only known from the Eastern Cape (Figure 7).

Vouchers: Rattray 229 (GRA, K); C. A. Smith 3590 (PRE).

While the leaves and peduncles of *P. myosuros* (below) have scattered hairs, those of the present species are densely villous. *P. rhodosperma* differs from *P. lanceolata* (no. 10) in that the spikes are as long as or longer than the peduncles in the former species but much shorter than the peduncles. This species is superficially similar to *P. lanceolata* (below), from which it may be distinguished by its inflorescences, in which the spikes are about as long as the peduncles, whereas in *P. lanceolata* they are much shorter than the peduncles. The hilum scar on the seeds is raised in this species, but depressed in *P. lanceolata* and *P. rhodosperma* (no. 8).

9. *P. myosuros* Lam., Tableau encyclopédiq et méthodique 1: 342 (1791); Decne.: 723 (1852); Pilg.: 244 (1913); Pilg.: 16 (1928); Pilg.: 226 (1937); Rahn: 115 (1974). Type: Uruguay, *Commerson s.n. (P)*.

Annual or perennial herbs. Leaves in a basal rosette, linear to narrowly lanceolate or oblanceolate, 90–120 × 7.0–12.5 mm, glabrous, rarely pubescent; petiole flattened, 25–100 mm long. Scapes few per rosette, 60–180 mm long; spikes 20–66 mm long. Bracts densely pilose, apices acute. Calyx lobes narrowly elliptic, ± 2.5 × 1.0 mm, not winged, acute. Corolla lobes narrowly deltoid, ± 2.5 × 1.0 mm, acute. Capsule ellipsoid, ± 3.0 × 1.5 mm. Seeds narrowly tetrahedral, 2–4 per capsule, pale yellowish brown, 1.4–1.6 × 0.8–1.0 mm, hilum scar at apex, small. **Flowering time:** January.

A weed introduced from South America (see Rahn 1974 for indigenous distribution); known in our area from the Eastern Cape, and Mpumalanga (Figure 5).

Vouchers: Codd 9885 (PRE); Galpin 8230 (PRE); Hilliard & Burtt 7557 (PRE); Jacot Guillaumard 8900 (GRA, PRE); Som 19537 (PRE).

This species is superficially similar to *P. lanceolata* (below), from which it may be distinguished by its inflorescences, in which the spikes are about as long as the peduncles, whereas in *P. lanceolata* they are much shorter than the peduncles. In shape, the leaves differ from all others in southern Africa. In shape, the leaves resemble a miniature form of *P. major* (no. 1).

10. *P. lanceolata* L., Species plantarum edn 1: 113 (1753); Decne.: 714 (1852); T. Cooke: 389 (1910); Pilg.: 313 (1937); Levyns: 730 (1950); Verdc.: 6 (1971); Troupin: 505 (1985). Type: specimen of *Plantago angustifolia major* in Hort. Cliff. p. 36 no. 3 (BM, lecto.).

Perennial herbs, very variable. Leaves in a basal rosette, linear to narrowly lanceolate or oblanceolate, 65–370 × 6–35 mm, glabrous or pubescent; petiole 30–125 mm long. Scapes many per rosette, 250–750 mm long; spikes 15–70 mm long. Bracts glabrescent, apices obtuse. Calyx lobes elliptic, ± 2 × 1.3 mm, winged, obtuse. Corolla lobes deltoid, ± 2.0 × 1.2 mm, acute. Capsule ellipsoid, ± 3.5 × 1.5 mm. Seeds boat-shaped, 2–4 per capsule, dark brown, 2.4–2.8 × 1.2–1.6 mm, hilum scar in a ventral depression almost as long as seed. **Flowering throughout the year, but mainly in summer.** Figure 1A–C.

A very common weed of cultivation and disturbed places; a typical habitat for this species is between paving stones on urban pavements (sidewalks). This species is indigenous or naturalised almost throughout the world and is widely distributed in southern Africa (Figure 8), even reaching Tristan da Cunha.

Vouchers: Boucher 1732 (PRE, STE); Dahlstrand 3570 (MO, PRE); Marloth 10044 (PRE); Reid 307 (PRE); Van Jaarsveld 3127 (PRE).

Differences between this species on the one hand and *P. myosuros* (above) and *P. rhodosperma* (no. 8) on the other, are dealt with under those species. The medicinal uses of this species are similar to those of *P. major* (no. 1).
Annual herbs. *Leaves* in a basal rosette, linear to filiform, amplexicaul. *Scapes* several per rosette, 12-130 mm long; spikes 4-17 mm long. *Bracts* with scattered villi, amplexicaul. *Calyx* lobes narrowly elliptic, ± 2.0 × 1.5 mm, winged, obtuse. *Corolla* lobes narrowly deltoid, ± 1.2 × 0.4 mm, amplexicaul. *Capsule* ellipsoid, ± 4.5 × 2.5 mm. *Seeds* boat-shaped, 2–4 per capsule, 2.3–4.1 × 0.8–1.25 mm, brown or greenish brown, hilum scar in a ventral depression almost as long as seed. **Flowering time:** August–September.

Endemic to the Western and Northern Cape (Figure 7). According to Pilger (1937) and Friedrich-Holzhammer (1968), also known from one collection from Warmbad District, Namibia.

**Vouchers:** Acocks 14836 (PRE); Goldblatt 2274 (NBG, PRE); Rösch & Le Roux 467 (PRE); Schlechter 4908 (BM, GRA, PRE, SAM, STE); Strey 3881 (PRE).

Differ from *P. bigelovii* (no. 2) in that the leaves and particularly the peduncles of the scapes are hirsute-villos rather than glabrous, and from all other southern African members of the genus by its small size and linear-filiform leaves.


Perennial herbs. *Leaves* caudine, linear, amplexicaul. *Scapes* several per stem, 200–300 mm long; spikes 100–150 mm long. *Bracts* glabrous or with few villi, very narrowly deltoid, conspicuous. *Calyx* lobes narrowly elliptic, ± 4 × 1 mm, not winged, obtuse. *Corolla* lobes ± 2.0 × 1.5 mm, obtuse. *Capsule* ellipsoid, ± 3.5 × 2 mm. *Seeds* boat-shaped, 2–4 per capsule, 1.9–2.6 × 1.1–1.3 mm, brown, hilum scar in a ventral depression almost as long as seed. **Flowering time:** January–February.

A weed, indigenous to the United States of America; rather rare in our region, known only from the Free State and KwaZulu-Natal border area, and from one specimen from Pretoria, Gauteng (Figure 7).

Vouchers: Burtt Davy 7104 (K, PRE); Haygarth s.n. in NH15976 (NH); Medley Wood 8858 (NH, PRE); Ward 5968 (NU, PRE).

The bracts of this species are about 20 times as long as wide, whereas in all other southern African species they are about twice as long as wide.

**DOUBTFUL SPECIES**

*P. laxiflora* Decne. in DC., Prodromus 13: 699 (1852); Pilg.: 81 (1937). Type: Eastern Cape, between Gekan and Baxh, *Drège* s.n. (P).

Annual (?) herbs. *Leaves* apparently in a basal rosette, narrowly lanceolate, 50–150 × 20–45 mm, coarsely dentate, glabrescent; petioles flattened. *Scapes* few per rosette, 200–650 mm long; spikes 120–300 mm long. *Bracts* slightly villous, acute. *Calyx* lobes elliptic, ± 3 mm long, not winged. *Corolla* lobes rotund or ovate, ± 1.4 mm long, acute. *Capsule* ellipsoid. **Seeds** boat-shaped, dark brown to black, to 3 mm long, hilum scar in a long ventral depression.

Pilger states that this species occurs in the Eastern Cape, but no specimen referable to this species was seen. The description above is based on that of Pilger.

Material matching this description should not be identifiable using the key above, which should fail at couplet 8, where neither lead describes this species, though it matches lead 6b.

*P. afr* *a* L., Species plantarum edn 2: 168 (1762); Verd.: 6 (1971). Type: Malta and North Africa, Morison Hist. 3: 262, sect. 8, t. 17/4 (syn.).

*P. psyllium* sensu L.: 167 (1762); Pilg.: 422 (1937) et auct. mult., non L.: 115 (1753). Annual erect herbs. *Leaves* opposite, subopposite or spirally arranged, narrowly lanceolate, 21–29 × 0.9–2.0 mm, glabrous, obtuse. *Scapes* several at a node, 20–50 mm long; spikes 6–11 mm long, few-flowered. *Bracts* glabrescent, amplexicaul. *Calyx* lobes elliptic, ± 3.0 × 1.5 mm, narrowly winged, subacute. *Corolla* lobes deltoid, ± 2.0 × 1.2 mm, acute. *Capsule* ellipsoid, ± 4 × 2 mm. **Seeds** boat-shaped, 2–4 per capsule, 2.7–3.2 × 1.0–1.4 mm, greenish brown, hilum scar in a ventral depression almost as long as seed.

Notes attached to a specimen from Kew indicate that this species was once cultivated experimentally in Pretoria. No material of it as a weed or naturalised in southern Africa was seen, though there are two cultivated specimens in the main herbarium at PRE. The above description was prepared from the Kew specimen.

A specimen, L.L. Britten 1613 (GRA), is similar to this species but has much denser leaves and shorter peduncles. These latter give the inflorescence the overall effect of a compound capitulum rather than a compound umbel.

It is distinguished from all other southern African species by its erect habit and usually opposite to subopposite leaves. It has been cultivated in order to extract an oil (psyllium oil) from the seeds. For opinions on the
nomenclature of this species see Pilger (1937) and Verdcourt (1971).

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