

APIACEAE

A NEW SPECIES OF *PEUCEDANUM* FROM NATAL

***Peucedanum thodei* Arnold**, sp. nov., *P. eylesii* C. Norman affinis, sed planta scabrida, raro glabra; rami superiores verticillati; folia ternatopinnatisecta; fructus alae paupere evolutae, incrassatae, non conspicue complanatae, coriacea, pagina laeviuscula nitenti.

Herba perennis, robusta, erecta, valida, varie scabrida (raro glabra), usque 2m alta. *Caulis* teres,

sulcatus, viridi usque purpureo-ruber, cavus, ramosus; rami inferiores alterni, rami superiores oppositi vel verticillati. *Folia* inferiora usque 0,6m longa, ternatopinnatisecta, ambitu triangularia lobi 20–60 mm longi, 10–20 mm lati, lanceolato-acuminati, irregulariter dentati vel lacerati; petiolorum vaginae bene evolutae, purpureo-rubae, striatae secus venas scabridae; folia caulina superioribus similia sed minora, petiolis



FIG. 2.—*Peucedanum thodei* (Killick 1227, PRE, holotype).

vaginiformibus. *Inflorescentiae* umbella terminali maxima, pedunculo brevi 5–20 mm longo \pm scabrido; umbellae laterales plerumque brevior oppositae vel verticillares, pedunculis 17–65 mm longis \pm scabridis. *Radii* 12–36, \pm scabridi, 9–36 mm longi. *Bractee* 8–13, persistentes, lineares, inaequales, 2–6 mm longae. *Umbellulae* 11–25-florae; pedicelli 2–13 mm longi. *Bracteolae* 6–9, lineares, inaequales, 0,5–3,2 mm longae. *Flores* bisexuales, umbellis lateralibus maturis fructus raro efferentibus. *Sepala* rudimentaria, triangularia, 0,2–0,6 mm longa. *Petala* flavo-virentia, ovata, apicibus longis inflexis. *Stamina* 5. *Stylopodium* prominens, conicum; styli breves, divergentes, *Fructus maturus* ovato-ellipticus 5–6 mm longus, 3,5–4,0 mm latus, 3(5) porcis abaxialibus prominentibus in quoque mericarpio; alae paupere evolutae, 0,4–0,6 mm latae, incrassatae, non conspicue complanatae, coriacea, pagina laeviuscula nitenti. *Vittae* 2 ventrales, 4 dorsales in sulcis inter cristas in quoque mericarpio.

TYPE.—Natal, 2829 (Harrismith): Cathedral Peak Forest Research Station, Bergville District (–CC), Killick 1227 (PRE, holo.; K).

Perennial herb, robust, erect, sturdy, variously scabrid (rarely glabrous), up to 2 m high. *Stems* terete, sulcate, green to purplish red, hollow, branched; lower branches alternate, upper branches opposite or whorled. *Lower leaves* up to 0,6 m long, 3-pinnate, triangular in outline, lobes 20–60 mm long, 10–20 mm wide, lancolate-acuminate, irregularly dentate to lacerate; petioles with well-developed sheaths, purplish red, striate, scabrid along veins; upper cauline leaves similar but smaller with petioles sheath-like. *Inflorescence* with terminal umbel largest; peduncle 5–20 mm long, \pm scabrid; lateral umbels smaller, opposite or whorled, peduncles 17–65 mm long, \pm scabrid. *Rays* 12–36, \pm scabrid, 9–36 mm

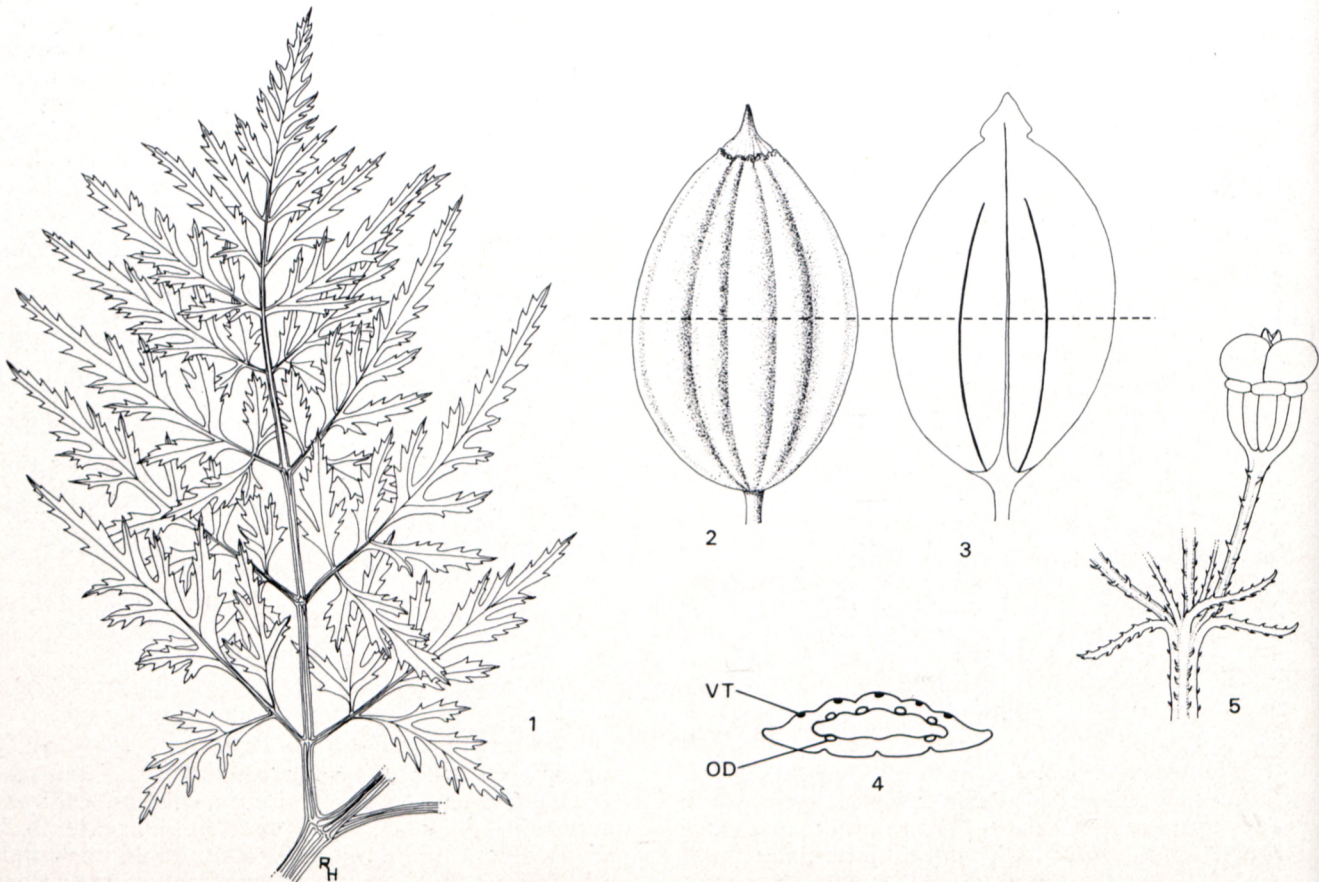


FIG. 3.—*Peucedanum thodei*. 1, pinna of compound leaf, $\times 0,5$; dorsiventrally compressed fruit with two mericarps: 2, abaxial view of mericarp, $\times 10$; 3, axial view of mericarp, $\times 10$; 4 transverse section of mericarp, $\times 10$ (OD=oil duct; VT=vascular trace); 5, part of inflorescence with single flower with petals and stamens removed, $\times 15$. (1 & 5 from Killick 1227; 2, 3, 4 from Acocks 22 194).

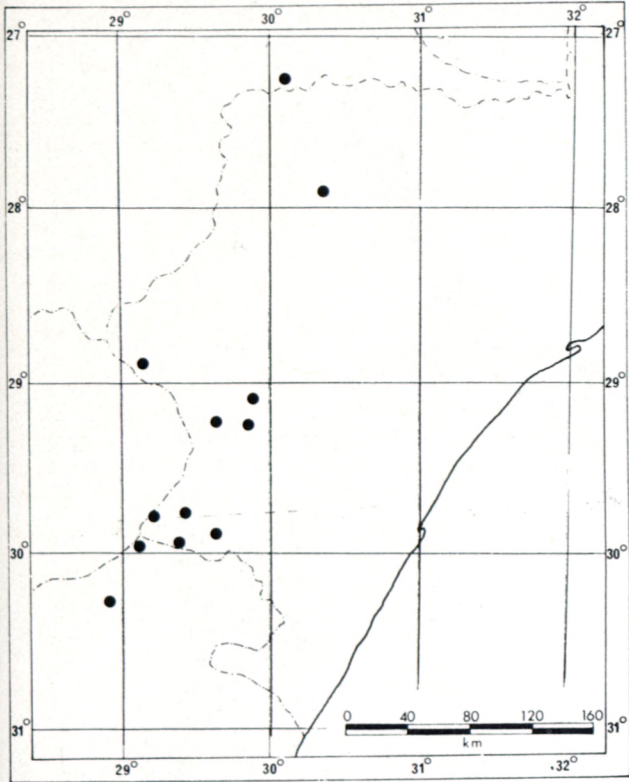


FIG. 4.—Distribution of *Peucedanum thodei*.



FIG. 5.—*Peucedanum thodei* growing on a streambank on the Little Berg at Highmoor Forest Station.

long. *Bracts* 8–13, persistent, linear, unequal, 2–6 mm long. *Umbellules* 11–25-flowered, pedicels 2–13 mm long. *Bracteoles* 6–9, linear, unequal, 0.5–3.2 mm long. *Flowers* bisexual, lateral umbels seldom producing mature fruits. *Sepals* rudimentary, triangular, 0.2–0.6 mm long. *Petals* yellowish green, ovate with long inflexed apices. *Stamens* 5. *Stylopodium* prominent, conical; style short divided. *Mature fruits* ovate to elliptical, 5–6 mm long, 3, 5–4, 0 mm broad, with 3(5) prominent abaxial ridges on each mericarp; lateral wings poorly developed, 0.4–0.6 mm wide, thickened, not conspicuously flattened, surface somewhat smooth, shiny and leathery. *Oil ducts* 2 ventral and 4 dorsal in furrows between ridges in each mericarp. FIGS 2 and 3.

This species is restricted to the lower slopes of the Drakensberg mountains, from Matatiele in the Transkei northwards to the Wakkerstroom area in the southern Transvaal and the Utrecht area in northern Natal (Fig. 4). It grows commonly along streambanks (Fig. 5) at altitudes between 1590–2440 m. Flowering period is from December to January and fruiting period from February to March.

In general facies this plant closely resembles many tropical African species of *Peucedanum* (e.g. *P. eylesii* C. Norman, *P. kerstenii* Engl., *P. linderi* C. Norman and *P. winkleri* Wolff), particularly in its habit and mode of branching, rather than the South African species of similar distribution range. However, in its fruits, *P. thodei* approaches closer to certain South African species: in these species there is a tendency for the wings of the fruits to become thickened, leathery and sometimes smooth and shiny in appearance. This is most noticeable in the Cape species and is also exhibited to a lesser degree in *P. thodei*. In *P. thodei*, however, the wings are poorly developed attaining a width of 0.6 mm or less. They lack the expanded, flattened, papery nature which, for the greater part, characterizes this genus. Despite this, its affinities are clearly closer to *Peucedanum* than to any other genus of Apiaceae. Its fruits represent an extreme in the range in variation exhibited within the present limits of the genus, which at best, are indistinct and are continually being stretched by the addition of problem taxa such as the one question. Consideration has been given to the possibility of establishing a new genus for this plant. Such an action would be unwise, however, unless accompanied by a revision of existing generic limits within the family or at least of *Peucedanum* and its allied genera. The species is named in honour of Hans Justus Thode, pioneer plant collector in the Natal Drakensberg.

TRANSVAAL.—2730 (Vryheid): “Oshoek”, Wakkerstroom (–AC), *Devenish* 986 (PRE).

NATAL.—2730 (Vryheid): Utrecht (–CC), *Thode A* 323 (K; PRE) 2829 (Harrismith): Cathedral Peak Forest Research Station (–CC), *Killick* 1227, 1641 (K; PRE). 2929 (Underberg): Bushmans Pass (–BB), *West* 1679 (PRE); Giants Castle Game Reserve (–BC), *Trauseld* 965 (PRE); Allendale, near Kamberg (–BD), *Wright s.n.* (NU); Kamberg (–BD), *Wright* 2345, 2375 (E; NU), 2374 (NU); Sani Pass below police post (–CA), *Hilliard & Burt* 9619 (E; NU); Upper Umzimouti valley (–CC), *Hilliard & Burt* 9388 (E; NU); Bushmans Nek (–CC), *Hilliard & Burt* 7973 (E; NU); Ngwangwane Valley, Bushmans Nek (–CC), *Killick & Vahrmeijer* 3942 (PRE); Coleford Nature Reserve (–CD), *Hilliard & Burt* 9556 (E; NU); “Sunset” (–DC), *Rennie* 540 (NU).

CAPE.—3028 (Matatiele): Ongeluksnek Pass (–BD), *Acocks* 22194 (K; PRE).

In the Cathedral Peak area of the Natal Drakensberg the plant is called umPhondovu and, according to Killick (1963), it is used by Zulu witchdoctors for “making rain”. It is apparently used only in the event of very serious drought, because it has unpredictable results. On occasions it is said to have induced severe hail-storms and sometimes even snow.

T. H. ARNOLD