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# Clarence Bicknell and *Pimpinella bicknellii*

By Graham Avery – July 2017

During a botanical excursion in 1897 on the Mediterranean island of Majorca[1] Clarence Bicknell found an interesting plant. He realised that it was a member of the Umbellifer family – plants with long stems and flowers forming clusters ('umbels') – but he could not identify the species. After returning to his home in Bordighera he sent it and other specimens to the *Conservatoire Botanique* in Geneva, where the Curator, John Briquet, determined that it was a new species, which in honour of its finder he named *Pimpinella Bicknellii.*

This note records what we know about the discovery and naming of the plant.

## The plant

The full botanical name of the species is *Pimpinella bicknellii* Briq.

- *Pimpinella.* The genus has 75 species, distributed throughout the Northen hemisphere and S. Africa, with a few in S. America. Its etymology is obscure: it may derive from Latin 'pampinus' (vine-leaf), or 'bipennula' (double-winged), or 'piper' (pepper).
- *Bicknellii.* The correct modern spelling of this part of the botanical name is *bicknellii* not *Bicknellii*. According to the rules of botanical nomenclature the generic name (the first element) begins with a capital letter while the specific name (the second element) does not, even if it is derived from a name with a capital letter.
- Briq. This abbreviation indicates that it was John Briquet who published the first valid description of the species. He did the same for a number of other species, and Briq. is his standard 'author abbreviation'

*Pimpinella bicknellii* Briq. is an endemic of Majorca, that is, it grows only there (in the N.E. of the island) and nowhere else. Its local name in Catalan is 'Fonollassa borda' which can be rendered in English as 'Wayside Fennel'. It has no common name in English.

Here is *Pimpinella bicknellii* growing in the Botanical Garden at Sóller in Mallorca:

[1] Mallorca in Catalan, the local language. The Balearic Islands (Mallorca and Menorca) belong to Spain.

**Discovery of the plant**

Clarence Bicknell (1842-1918) studied at Cambridge University and then served as an Anglican priest in London and Shropshire. In 1878 he went to Bordighera on the Italian Riviera as Chaplain of its Anglican Church. He gave up his work in the church in 1879, but stayed in Bordighera for the rest of his life. His passion for botany led him to publish:

- *Flowering plants and ferns of the Riviera and neighbouring mountains* (1885)
- *Flora of Bordighera and San Remo* (1896)

His visit to Majorca took place in the spring of 1897. In the summer of that year he explored the prehistoric rock engravings in the Maritime Alps, and began the scientific study and recording of the rock art which led to a series of publications culminating in:

- *A guide to the prehistoric rock engravings in the Italian Maritime Alps* (1913)

One of his friends was the Swiss botanist Emile Burnat, with whom he corresponded regularly from 1886 onwards. Burnat had visited the Balearic Islands in 1881 with other botanists[2], and it was probably on his advice that Bicknell went to Majorca in 1897. Burnat had published in 1882 *Notes sur un Voyage Botanique dans les Iles Baleares et dans la Province de Valence*. For Bicknell's visit in 1897 he sent him this book[3], a list of plants, and a map of the routes that his party had followed in 1881.

In 1897 Bicknell travelled to Majorca with his assistant Luigi Pollini via Narbonne and Barcelona. Soon after arrival he wrote to Burnat[4] that he was 'assez bien logé mais très mal nourri' in Palma, and later he wrote from Soller[5] 'J'ai beaucoup joui ces jours ici – herborisations assez bonnes – probablement tout ce que je pouvais espérer de trouver si tôt'. After returning to Bordighera, he sent a long letter to Burnat[6] with a description of the itinerary that they followed and a list of plants that they collected.

During 20 days on the island, from 17 April to 7 May, their itinerary was: Palma, Belver, Prat Torre do Pau, Miramar, Andriculz, Arta, Cueva d'Arta, mountains above Ermita, Genova, Soller, Barranco & Sierra de Soller, Puig Major, Lluch, Pollenza, Ariant, Inca, Soller via the mountains, Palma[7]. It was on 1 May, during an excursion from Pollenza to Ariant, that they found the unusual Umbellifer. Bicknell wrote:

> 'Je suis enchanté de l'île, des montagnes, des villages, et de leur propreté, c'est vraiment étonnant pour un pays méridionale. Je ne sais pas précisément ou nous sommes allés le jour de notre course à Ariant, mais je crois qu'au moins nous sommes revenus par votre route, mais nous sommes allés très loin vers Lluch, puis nous avons passé les collines derrière la grande chaine vers la mer, ou il y a des fermes et terres cultivées, puis nous sommes montés par un barranco horriblement raide sur les

[2] Including the eminent Swiss botanist Edmond Boissier.
[3] Letter Bicknell-Burnat 1897-04-18
[4] Letter Bicknell-Burnat 1897-04-28
[5] Letter Bicknell-Burnat 1897-04-08
[6] Letter Bicknell-Burnat 1897-05-13
[7] There are probably errors in my transcription of the place-names mentioned in 1897-05-13 since the writing is difficult to decipher

> éboulis et les rochers, assez difficile et pénible jusqu'au sommet, ou nous sommes perdus pour deux heures, puis redescendus vers la mer et enfin gagné un sentier que vous avez indiqué. Toute la journée un brouillard épais, mais j'ai vu tant de plantes, tant de Paeonia, Buxus, etc. etc. Delphinium Staphys, pas pictum je crois, mais fleures violettes, pas bleues, et un Ombellifer'.

He added modestly:

> 'A présent c'est mon Ombellifer qui m'intéresse le plus, mais probablement c'est quelque chose très commune'.

**Naming of the plant**

During the visit to Majorca Bicknell collected a number of plants that he believed to be of interest to Briquet, who worked in Geneva with Burnat, and on his return to Bordighera he sent them to Briquet together with the Umbellifer.

Briquet determined that the Umbellifer was a new species, which he named *Pimpinella Bicknellii*. However, Briquet was slow in dealing with the matter, for in December 1897 Bicknell wrote to Burnat[8] 'Vous n'avez rien à me dire sur l'ombellifer de Majorque?' By September 1898 Briquet had made progress, for Bicknell wrote[9] 'Rien de nouveau sur la Pimpinella Bicknellii – quand sera-t-elle imprimée?' Finally the saga was concluded, for in January 1889 he wrote[10] 'Donc M. Briquet a publié la fameuse Pimpinella, et la planche est très bien réussie'.

In the course of 1898 Briquet published two notes (see texts in Annexes 1 & 2) describing the plant in botanical Latin:

- a brief description in *Bulletin de l'Herbier Boissier* 1898 p. 85
- a longer description with an illustration in *Annuaire du Jardin et du Conservatoire Botanique de Genève* 1898 pp. 289-91 (Planche II)

**Present status**

An article in the Bulletin of the Catalan Institute for Natural History (1997)[11] states that *Pimpinella bicknellii* is 'endemic to the Serra de Tramuntana in Majorca, and up to now is known in only three places: the valley of Ariant, Mortitx (between Lluc and Ariant) and Cosconar (at the western end of Puig Roig). It grows in the shade of limestone rocks and at the edge of oakwoods'.

The Bioatlas of Majorca (2013)[12] explains that it is found only in Tramuntana, and is not uncommon in the area from Ariant to the torrent of Pareis. The species is fully protected by

[8] Letter Bicknell-Burnat 1897-12-03
[9] Letter Bicknell-Burnat 1898-09-17
[10] Letter Bicknell-Burnat 1899-01-26
[11] *Contribution to the cytotaxonomic study of the Balearic Flora*, But. Inst. Cat. Hist. Nat., 41 (Sec. Bot., 2): 83 – 94, Barcelona 1997 http://publicacions.iec.cat/Front/repository/pdf/00000129%5C00000002.pdf
[12] See https://www.caib.es/sites/proteccioespecies/ca/d/pimpinella_bicknellii_mallorca_bioatles_2013-75669/.

law, its population is stable, and though designated as 'vulnerable' it is not thought to be specially threatened.

**Synonyms**

Although the name attributed by Briquet is generally accepted, the plant has acquired a number of synonyms[13] (given by other botanists who have classified it a different genus):

- *Apium bicknellii* (Briq.) Calest. in Webbia 178 (1905)
- *Spiroceratium bicknellii* (Briq.) H. Wolff in Repert. Spec. Nov. Regni Veg. (1921)
- *Adarianta bicknellii* (Briq.) Knoche, Fl. Balear. 2 (1922) (*Adarianta* = 'of Ariant')

**Other plants named after Bicknell**

In addition, the following plants have been named after Clarence Bicknell:

1. *Centaurea rhapontica* var. *bicknellii* Briq. (synonym of no. 5.)
2. *Dorycnium bicknellianum* Beiger et Dinter
3. *Euphrasia bicknellii* Wettstein
4. *Hieracium bicknellianum* Belli et Arvet-Touvet
5. *Rhaponticum heleniifolium* subsp. *bicknellii* (Briq.) Greuter

Most of the authors of these species (Briquet, Dinter, Wettstein, Belli) were friends or correspondents of Bicknell.

For the naming of *Iridomyrmex bicknelli* (an Australian ant) see my article at http://www.clarencebicknell.com/images/downloads_news/iridomyrmex_bicknelli_avery.pdf

The specific name of the ant is *bicknelli* not *bicknellii* because that is what the author of the species (Carlo Emery, Professor of Zoology at Bologna) chose in 1898. In fact both forms are acceptable since the Latin version of the name Bicknell could be Bicknellus or Bicknellius.

**Plants named after the other Bicknell**

Eugene Pintard Bicknell (1859-1925) was an American botanist and ornithologist, descended from Zachary Bicknell who in 1635 emigrated from England to Massachusetts. Eugene Pintard Bicknell was a banker, lived in Long Island, New York, and published numerous articles about the birds and flowers of Riverdale and the Hudson Valley.

Species named after E. P. Bicknell include a bird (*Catharus bicknelli*) and two plants (*Anteriopaludorchis bicknellii, Agrimonia bicknellii*).

**Pimpinella in other languages**

Common names for other plants have been derived from the botanical name Pimpinella. 'Pimpinella' is an alternative name in Italian for 'Salvastrella' *Sanguisorba minor* (Salad Burnet in English) and 'Anice' *Pimpinella anisum* (Anise). In French 'Pimprenelle' is the

[13] See http://www.floraiberica.es/eng/PHP/cientificos2.php?gen=Pimpinella&espe=bicknellii&infrank=&infra=&autabre=Briq.&familia=Umbelliferae

name for *Sanguisorba minor*. ‘Scarlet Pimpernel’ is the name in English for *Anagallis arvensis* (in Baroness Orczy’s novel *The Scarlet Pimpernel* of 1905 it is the symbol of Sir Percy Blakeney, whose band of English gentlemen rescues aristocrats in revolutionary France).

Annex 1

**Note Préliminaire sur le Pimpinella Bicknellii**

John Briquet in *Bulletin de l’Herbier Boissier* 1898 p. 85



Pimpinella Bicknellii Briq., sp. nov. — Herba elata. radice digitata, segmentis incrassatis. Caulis robustus, striatus, glaber, ramosus, ramis ascendentibus. Folia ternato-pinnata, atro-viridia. glabra, seginentis ovato-ellipticis irregulariter et profunde inciso-dentatis, vagina elongata. Umbellae compositae, involucro nullo vol subnullo, radiis crassis, glabris ; umbellulae parvae ad 10-15 florae, pedicellis brevibus, involucello ex bracteolis lanceolatis constante valde reducto. Flores albi. Calicis dentes obsoleti. Petala costa impressa cucullata apice emarginata, dein subito in acumen longius inflexum producta. Stylopodia crasse conica, rnargine subintegerrima. Styli elongati, incurvo-divergentes. Fructus ovato-oblongus. a latere cömpressus, ad commissuram latam aliq. constrictus, glaberrimus; mericarpia tereti-5gona, jugis primariis aequalibus tenuibus, vittis in quaque vallecula 3, adjectis saepe parvis aliis irregulariter evolutis. Carpophorum bifidum.

Hab. : Serra ad N. E. insulae Majorque balearicae, in petraeis inter Pollenza et Lluch (leg. ill. Cl. Bicknell).

Descriptio accurata et icon hujus plantae ulterius dabuntur.

*English translation of last part of text:*

Location: Mountain in North East of the Balearic island of Majorca, in rocky area between Pollenza and Lluch (where it was collected by Cl. Bicknell). A fuller description and an image of the plant will be provided later.

Annex 2

**Une Ombellifère Nouvelle des Iles Baléares**

John Briquet in *Annuaire du Jardin et du Conservatoire Botanique de Genève* 1898 p. 289-91



Dans le courant de l'année 1897, nous reçûmes, par l'intermédiaire de M. E. Burnat, une Ombellifère singulière récoltée dans l'Ile Majorque par M. Cl. Bicknell, l'excellent botaniste de Bordighera. Quoique l'échantillon ne fût pas pourvu de fruits murs, nous pûmes cependant en faire l'étude et y reconnûmes une espèce non décrite du genre Pimpinella. Nous avons publié en janvier 1898 {Bull, de l'Herb. Boiss. VI, p. 85) une diagnose sommaire de cette nouvelle espèce. Mais la plante découverte par M. Bicknell méritait une description détaillée et une planche que nous promettions, dans notre note préliminaire, de fournir ultérieurement. Nous pouvons aujourd'hui, grâce à M. Bicknell, donner l'une et l'autre. Voici, d'après les matériaux à notre disposition, les caractères de notre nouvelle espèce.

Pimpinella Bicknellii Briq., sp. nov. Herba elata, radice digitata, segmentis incrassatis (ex cl. Bicknell). Caulis robustus, striatus, plenus, glaber, superne ramosus, ramis ascendentibus. Folia basilaria bipinnatisecta, ambitu ± triangularia, basi post vaginam elongatam longe petiolata, segmentis ovato-ellipticis, apice obtusis, basis rotundato-subcordatis, irregulariter et profunde inciso-dentatis, supra atro-viridia, subtus aliq. pallidius virentia, glabra vel subglabra, mollia, ad dentium margines tantum minute ciliolata; folia superiora in vagina elongata sessilia, basilaribus similia, sed segmentis minoribus. Umbellae compositae, involucro nullo vel subnullo, radiis crassis elongatis glabris, ca. 8-12. Umbellulae parvse, pedicellis 10-15, brevibus, glabris; involucellus constans ex bracteolis lanceolatis paucis brevibus, valde reductus. Flores albi in umbellula dense conferti. Calicis dentes obsoleti. Petala costa impressa subcucullata apice emarginata vel concaviuscula, dein subito in acumen longius inflexum producta. Staminum filamenta intus recurva, antherae intra petala pendulae. Stylopodia crasse conica, margine subintegerrima. Styli elongati, incurvo-divergentes. Fructus ovato-oblongus, a latere compressus, ad commissuram latam aliq. constrictus, glaberrimus. Carpophorum bifidum. Mericarpia tereti-5-gona, jugis primariis aequalibus tenuibus, epicarpii cellulis mediocribus parietibus externis mediocriter incrassatis, meso-carpio chlorophyllifero, vittis in quaque vallecula 3, sed saepe confluentia tantum 2, fasciculis libero-lignosis sat robustis omnibus vitta parva pericyclica comitatis, endocarpii cellulis vix peculiariter evolutis. Albumen tereti-convexum, antice aliq. concavum vel subplanum.

Herba 50 cm. alta et ultra, internodiis mediis ad 12 cm. longis, Foliorum basilarium vagina 6-8 cm. longa, petiolus ad 6 cm. longus, segmenta superficie circa 4 X 2 cm., incisionibus 2-6 mm. profundis; foliorum superiorum vagina 4...1 cm. longa. Radii evoluti ad 1,5 cm. longi. Pedicelli demum 2 mm. longi. Petala et antherae 0,7 mm. alta. Styli cum stylopodis 2-2,5 mm. longi. Mericarpia immatura maxima 3 mm. longa.

Hab. : Serra ad N. E. insulas Majorque balearicse, in petraeis inter Pollenza et Lluch (leg. ill. Cl. Bicknell).

C'est un exemple de plus à ajouter à la liste des endémismes insulaires anciens qui caractérisent la flore si intéressante des Iles Baléares.

**Explication de la Planche**

1, tige florifère. 2, fleur entière vue d'en haut. 3, pétale. 4, anthère. 5, étamine. 6, fruit (non encore mûr) avec stylopode et styles. 7, section transversale d'ensemble d'un méricarpe. La fig. 1 est de grandeur naturelle, les fig. 2-7 sont fortement grossies.