

## A REPORT ON THE FOURTH BOTANICAL NOMENCLATURE COURSE ORGANIZED BY THE BOTANICAL SURVEY OF INDIA AT SHILLONG

P. LAKSHMINARASIMHAN,<sup>1</sup> N. ODYUO,<sup>2</sup> CHAYA DEORI,<sup>2</sup>  
DEEPU VIJAYAN,<sup>2</sup> DAVID L. BIATE,<sup>2</sup> AND KANCHI N. GANDHI<sup>3</sup>

The Botanical Survey of India (BSI) held its fourth Botanical Nomenclature Course on January 27–31, 2020 at BSI-Eastern Regional Centre (BSI-ERC), Shillong. The course drew 66 participants from across the country, including 45 from outside BSI (Fig. 1). Ashiho A. Mao, director of BSI, was the convener of the course; P. Lakshminarasimhan, ex-joint director of BSI, and Nripemo Odyuo, head, BSI-ERC, served as the coordinator and facilitator, respectively. Kanchi N. Gandhi served as the course director. Participants were provided with the latest International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code; Turland et

al., 2018) and a user's guide to the International Code of Nomenclature (Turland, 2019).

Chaya Deori (BSI-ERC) anchored the inaugural activities. Odyuo gave a welcome speech, followed by remarks from Lakshminarasimhan, Gandhi, and chief guest Mao. Rajalakshmi Prasad and Anupama Jayasimha (former students of Gandhi's at National College, Bengaluru) were the guests of honor. Uma Shankar (North-Eastern Hill University, Shillong) also attended the inaugural function.

Gandhi began the course with a historical review of botanical nomenclature. He provided a detailed review of



FIGURE 1. Fourth Botanical Nomenclature Course organized by the Botanical Survey of India at Shillong. Delegates of the course.

We thank A. R. Brach (A, GH) for helpful suggestions on the text, C. M. Gallagher, and D. Medhanie (A, GH).

<sup>1</sup>Ex-Joint Director, Botanical Survey of India, India.

<sup>2</sup>Botanical Survey of India, Eastern Regional Centre, Shillong, Meghalaya, India.

<sup>3</sup>Harvard University Herbaria, 22 Divinity Avenue, Cambridge, Massachusetts 02138, U.S.A.



FIGURE 2. Fourth Botanical Nomenclature Course organized by the Botanical Survey of India at Shillong. Discussion session.

the Shenzhen Code and discussed the Code Articles, with special emphasis on correct names and solving nomenclatural problems of the participants. Gandhi covered the following topics at the various sessions: an overview of nomenclature from pre-Linnaeus to the Shenzhen Code; review of the physical structure of the Code: preamble, ranks, and names of taxa (appropriate Articles 1–5 and 16–28); status, typification, starting points, conservation, and sanctioning (Articles 6–15); effective publication; validity of names (Articles 29–45); authorship citation (Articles 46–50); rejection of names-I (Articles 51–59); and orthography (Articles 60–62). In addition, he discussed hybrid names and fungal code. Each day ended with an interactive discussion with the participants (Fig. 2).

#### SOME DISCUSSED TOPICS

##### **Tomato and Circumscription:**

*Solanum lycopersicum* L. (1753); *Lycopersicon esculentum* Mill. (1768), *nom. cons.*; *Lycopersicon lycopersicum* (L.) H. Karst. 1882 (“*Lycopersicum lycopersicum*”)

For tomato, Gandhi mentioned that for those who use *Solanum s.l.* (including *Lycopersicon*), the correct name is *S. lycopersicum*, and for those who recognize *Lycopersicon* as a distinct genus, the correct name is *L. esculentum*.

##### **Berlin Code (1988):**

*Pongamia* Vent., Jard. Malm. T. 28. 1803. (*nom.cons.*); *Typus: P. glabra* Vent., *nom. illegit.* (*P. pinnata* (L.) Pierre, *Cytisus pinnatus* L.)

*Pongam* Adans., Fam. Pl. 2: 322, 593. 1763; *Typus: Dalbergia arborea* Willd.

*Derris* Lour., Fl. Cochinch.: 423, 432. 1790, *nom. cons.*; *Typus: D. trifoliata* Lour. (*typ. cons.*)

##### **Tokyo Code (1994):**

*Pongamia* Adans., Fam. Pl. 2: 322, 593. 1763 (“*Pongam.*”), (*nom. & orth. cons.*); *Typus: P. pinnata* (L.) Pierre (*Cytisus pinnatus* L.) (*typ. cons.*); *nom. rej. vs. Millettia* Wight & Arn. 1834 (*nom. cons.*)

*Derris* Lour., Fl. Cochinch.: 423, 432. Sep 1790, *nom. cons.*; *Typus: D. trifoliata* Lour. (*typ. cons.*)

Gandhi explained that occasionally the Code concepts may change and remarked that, as per the Berlin Code, *Pongam* Adans. and *Pongamia* Vent. were heterotypic and that *Derris* had priority over *Pongamia* Vent., and that in contrast, as per the Tokyo Code, *Pongam* Adans. was correctable to *Pongamia* Adans., typified with *P. pinnata*, and has priority over *Derris*.

##### **English Grammar and Validity:**

Gandhi’s discussion included two examples showing how English grammar could affect validity of a plant name. For example, Haworth (1821: 81-82) validly published the name *Mesembryanthemum* section *Minima* Haw. and remarked that “if this section proves to be a genus, the name of *Conophyton* would be apt.” The designation “*Conophyton*,” suggested by Haworth (1821), was not a validly published generic name because Haworth did not adopt or accept the genus (see Art. 36.1 Ex. 4). In contrast to the preceding situation, Gandhi provided a different example, viz., *Crepis sancta* (L.) Bornm. (1913). On his new combination, Bornmüller remarked that “if one unites

the genus *Lagoseris* with *Crepis*, as Muschler has done recently, the plant has to be named *Crepis sancta*." Gandhi mentioned that he and John Wiersema (the chief editor of Code Appendices II–VIII) discussed the validity of the name *C. sancta* and asserted that it is a validly published species name. Gandhi elaborated by stating that in the first example (*Conophyton*), the verb in the second part of the sentence ("would be apt") is the simple future resulting in a conditional sentence and thus causing invalidity, whereas in the second example the verbs ("unites" and "has to be") are in the simple present, resulting in a zero-conditional sentence in which one can replace "if" with "when," because both express general truths. The meaning will be unchanged as shown here: "When (= "If") one unites the genus *Lagoseris* with *Crepis*, as Muschler has done recently, the plant has to be named *Crepis sancta*."

#### VALEDICTORY FUNCTION

A valedictory function was held on January 31, 2020, anchored by Debonina Dutta (BSI-ERC). Odyuo and Lakshminarasimhan gave short talks. Gandhi was presented with a memento of appreciation by Odyuo (Fig. 3), a painting of an orchid (*Paphiopedilum venustum* (Wall. ex Sims) Pfitzer) by L. Ibemhal Chanu, a botanist at BSI-ERC (Fig. 4), as were Rajalakshmi Prasad and Anupama Jayasimha. Gandhi acknowledged several people, especially Gopal Krishna (BSI-Central National Herbarium) and Chanu, for helping to make the course a success. Feedback on the course was given by four participants: Suman Datta (Serampore College, Hooghly), Kh. Sangeeta Devi (BSI-ERC), Rajeev Kumar Yadav (Bareilly College, Bareilly), and B.R. Kailash (ATREE, Bengaluru). Certificates were then distributed to all the participants).



FIGURE 3. Fourth Botanical Nomenclature Course organized by the Botanical Survey of India at Shillong. Presentation of a memento to K. N. Gandhi by N. Odyuo.

#### LITERATURE CITED

- HAWORTH, A. H. 1821. *Saxifragëarum Enumeratio... Accedunt Revisiones Plantarum Succulentarum*. veneunt apud Wood, London.
- TURLAND, N. J., J. H. WIERSEMA, F. R. BARRIE, W. GREUTER, D. L. HAWKSWORTH, P. S. HERENDEEN, S. KNAPP, W.-H. KUSBER, D.-Z. LI, K. MARHOLD, T. W. MAY, J. MCNEILL, A. M. MONRO, J. PRADO, M. J. PRICE, AND G. F. SMITH. 2018. *International Code of Nomenclature for Algae, Fungi and Plants (Shenzhen Code)*. Vol. 159 of *Regnum Vegetabile*. Koeltz Scientific Books, Königstein.
- TURLAND, N. J. 2019. *The Code Decoded. A User's Guide to the International Code of Nomenclature for Algae, Fungi, and Plants*. Pensoft Publishers, Sofia, Bulgaria.



FIGURE 4. Artwork presented to K. N. Gandhi (*Paphiopedilum venustum* (Wall. ex Sims) Pfitzer, Orchidaceae). Painting by L. Iemhal Chanu.