



ADDITIONAL DATABASE OF FERNS IN SIKKIM-PART III

Durga Kumar Pradhan

¹Quality Control Laboratory-HARC- Sikkim State Forest Herbarium (SSFH)
Forest and Environment Department, Govt. of Sikkim, Deorali-777102, Gangtok, Sikkim, India.
E-mail: pradhansikkim@gmail.com

The Sikkim Himalaya is the treasure house of pteridophytes and this area is explored by the several experts and botanists. The information of biodiversity of pteridophytes attracts many interested groups due to the paradigm of the ranges and adoption patterns. Meanwhile, one of the explorers of pteridophytes of Sikkim, Mr Jenkin, had a collection of pteridophytes in his account which were deposited in the Sikkim Forest Herbarium long time back. Unfolding of the records, it was found that there were some species which were not reported earlier.

In the literature surveys, there were some publications in this regards (Fraser-Jenkins, 2008; Fraser-Jenkin et al., 2016, 2018; Lepcha and Pradhan, 2021; Pradhan, 2021) and referring to those reviews and publications, it is indeed felt necessary to frame the additional database of ferns of Sikkim.

Hence, these species are enlisted and presented below:

1. *Adiantum edgeworthii* Hook. SK001896, Vou.375109. Family: Adiantaceae. Locality: Barsey (2790 m) – goda Kharka (1990m)-Dentam (1460m) Date of Collection: 27.6.2003.
2. *Angiopteris indica* Desv. SK002165, Vou.380142; Family: Marattiaceae. Locality: Lachung- Thusa Camp (3600m)- Suican (4180 m). Date of Collection: 25.07.2003.
3. *Arachniodes superb* Fraser-Jenk. SK003901 Vou. 375078 Family: Cypripodiaceae. Locality : Hilley (2700m)- Bersey (2790m)- Below Tal Danda (2840m)- Bersey (2790m).
4. *Arachniodes fraserjenkinsii* Zhou et al. SK002284, Vou. 380265; Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) - Suican (4180m). Date of Collection: 25.07.2003.
5. *Arthromeris himalovata* Fraser-Jenk. & Kandel SK002232 Vou. 380212 Family: Polypodiaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
6. *Arthromeris tatsienensis* (Fr. & Bureau ex Christ) Ching SK002279, Vou.380260 Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
7. *Arthromeris farretii* SK001993, Vou.375209. Family: Polypodiaceae. Locality: Phedi (2860m)- Wom (2480m)- Rimbik Khola (2100m)- Chouri (2150m)- Rimbik Khola (1730m)- Seng Khola (1790m). Date of Collection: 04.07.2003.
8. *Asplenium cheilosorum* Kuntze ex Mett. SK002271, Vou.380252. Family: Aspleniaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
9. *Athyrium anisopterum* Christ. SK002021, Vou.375228 Family: Athyriaceae. Locality: Phedi (2860m)- Wom (2480m)- Rimbik Khola (2100m)- Chouri (2150m)- Rimbik Khola (1730m)- Seng Khola (1790m). Date of Collection: 04.07.2003.

10. *Athyrium dubrum* Ching SK002086, Vou.380056. Family: Athyriaceae. Locality: Chachu (2960m)- Sebang (3200m). Date of Collection: 23.07.2003.
11. *Athyrium fangii* Ching SK002241, Vou.380221. Family: Athyriaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
12. *Coenopteris quadripinnata* Balano. SK003909, Vou.375115. Family: Polypodiaceae. Locality: Dentam (1460m)-Pelling (1930m)- Nambu (1700m)- Rimbik (1560m). Date of Collection: 28.06.2003.
13. *Crepidomanes insigne* (Bosch) Fu. SK002270, Vou.380251. Family: Hymenophyllaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 23.07.2003.
14. *Deparia allantodioides* (Bedd.) Kato SK002090, Vou. 385060 Family: Athyriaceae. Locality: Chachu (2960m)- Sebang(3200m) Date of Collection: 25.07.2003. Coll. Koji Yonekura.
15. *Diplazium polypodiodes* Blume. SK002246, Vou.380226 Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
16. *Dryopteris pulvinulifera* (Bedd.) Kuntze. SK002144, Vou.380115. Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) - Suican (4180m). Date of Collection: 25.07.2003.
17. *Dryopteris alpestris* Tagawa SK002210, Vou.380190. Family: Dryopteridaceae. Locality: Dikillnang (3880m)- Labhyak (Kharka House) (3340m)- Tamrong (2900m) Ribjiphorong (2820m) river side (2490m) - Thollung Gumpa (2380m). Collection: 2.8.2003
18. *Dryopteris clarkei* (Baker) Kuntze SK002222, Vou.380202. Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
19. *Dryopteris fructosa* (Christ) C.Christensen. SK005571, Vou.320347. Family: Dryopteridaceae. Locality: Tarumchu Bridge 2210m Lachen (2640m) - Tarum Chu Bridge 2210m- Chachu (2960m).
20. *Dryopteris paleolata* (Pichie Serm) Zhang. SK001849, Vou.375056, Family: Dryopteridaceae. Locality: Hilley (2700m) - Forest Road (2600m) -Hilley (2700m). Date of Collection: 25.06.2003.
21. *Dryopteris sikkimensis* (Bedd.) Kuntze SK002202, Vou.380181. Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) - Suican (4180m). Date of Collection: 25.07.2003.
22. *Dryopteris wallichiana* var *bhutanica* Fraser-Jenk. SK001883, Vou.375095. Family: Dryopteridaceae. Locality: Barsey (2790m)- Goda Kharka (1990m) -Dentam (1460m). Date of Collection: 27.06.2003.
23. *Himalayopteris erythrocarpa* (Mett. ex Kuhn) W.Shao & S.G.Lu SK003856, Vou.320321. Family: Polypodiaceae. Locality: Lachen (2640m) - 2780m-ridge 2940m- Kharka (2980m) -Lachen (2640m)
24. *Hymenophyllum polyanthos* (Sw.) SW. SK002067 380037 Family: Hymenophyllaceae. Locality: Lachen (2640m)- Tarum Chu Bridge (2210m) - Chachu (2960m) Date of Collection: 22.07.2003.

25. *Katoella pulchra* (D.Don) Fraser-Jenk., SK002269 380250 Family: Dennstaedtiaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
26. *Lepisorus nudus* (Hook.) Ching SK002268 380249 Family: Polypodiaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
27. *Polystichum longipaleatum* SK002243 380223 Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
28. *Polystichum woodsiioides* Mickel SK002143 380114 Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
29. *Polystichum mehrae* Fraser-Jenk & Khullar. SK002250, Vou.380230. Family: Dryopteridaceae. Locality: Lachung Thosa Camp (3650m) - Suican (4180m). Date of Collection: 25.07.2003.
30. *Polystichum shensiense* Christ. SK005572. Vou. 380089. Family: Dryopteridaceae. Locality: Sebang 3200m-Tharum (Marsh-3270m)- Lane (Stream) 3330 m) 3330m- Chokama (3350m)- Gay (3400m) - Gaychu Bridge (3460m)- Yutoney Sebang (3200m)- Chachu (2960m) - Tarum Chu Bridge (2210m). Date of Collection: 24.07.2003.
31. *Polystichum squarrosom* (D.Don) Fee SK002020 375236 Family: Dryopteridaceae. Locality: Seng Khola (1770m) -Rimbik (1560m) Namgu (1700m) Date of Collection: 05.07.2003. Coll. Noshiro, Kanno, Katsuyama, N Kn Kt Kw
32. *Pichisermolodes stewartii* (Bedd.) Fras- Jenk. SK002096 380066 Family: Polypodiaceae. Locality: Lachen(2640m)- Tarumchu Bridge (2210m)- Chachu (2960m). Date of Collection: 23.07.2003.
33. *Pteris pellucida* C.Presl SK002263 380243 Family: Pteridaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
34. *Pteris terminalis* Wallich ex J. Agardh SK002245 380225 Family: Pteridaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
35. *Ptisana fraxinea* (Sm.) Murdock. SK002072 380042 Family: Marattiaceae. Locality: Lachen(2640m)- Tarumchu Bridge (2210m)- Chachu (2960m). Date of Collection: 22.07.2003.
36. *Selaginella chrysorrhizos* Spring. SK002020 375238 Family: Selaginellaceae. Locality: Seng Khola (1770m)- Rimbik (1516m) Nambu (1700m). Date of Collection: 5.07.2003.
37. *Selaginella fulcrata* (Buch.-Ham. ex D.Don) Spring SK002260. 380240; Family: Selaginellaceae. Locality: Lachung Thosa Camp (3650m) -Suican (4180m). Date of Collection: 25.07.2003.
38. *Selaginella pallidissima* Spring. SK002081. Vou. 380051. Family: Selaginellaceae. Locality: Lachen(2640m)- Tarumchu Bridge (2210m)- Chachu (2960m). Date of Collection: 22.07.2003.
39. *Selaginella truncata* H.Karst. ex A.Braun SK002252, Vou.380232. Family: Selaginellaceae. Locality: Lachung Thosa Camp (3650m) - Suican (4180m). Date of Collection: 25.07.2003.

40. *Thelypteris elwesii* (Baker) Ching. SK002217, Vou.380197. Family: Thelypteridaceae. Locality: Dikilnang (3880m)- Labhyak (Kharka House) (3340m)- Tamrong (2900m) Ribphorong (2820m)-river side (2490m)- Thollung Gumpa (2380m). Date of Collection: 2.08.2003.

The forty species of pteridophytes are presented with the details of its habitat, altitude, locality and collection's date. Furthermore, these information might support the researchers to explore and strengthen the scientific researches.

ACKNOWLEDGEMENT

Author is thankful to the Department of Forest and Environment, Government of Sikkim for the support.

Author extends thanks to all staffs of the HARC-QCL, F&ED, GOS.

REFERENCES

- Fraser-Jenkins, C.R. 2008. Taxonomic Revision of Three Hundred Indian Subcontinental Pteridophytes With a Revised Census-List. Bishen Singh Mahendra Pal Singh, Dehra Dun. Pp. 685.
- Fraser-Jenkins, C.R., Gandhi, K.N. and Kholia, B.S. 2016. An Annotated Checklist of Indian Pteridophytes Part-1 (Lycopodiaceae to Thelypteridaceae). Bishen Singh Mahendra Pal Singh, Dehra Dun. Pp. 562.
- Fraser-Jenkins, C.R., Gandhi, K.N. and Kholia, B.S. 2018. An Annotated Checklist of Indian Pteridophytes Part-2 (Woodsiaceae to Dryopteridaceae). Bishen Singh Mahendra Pal Singh, Dehra Dun. Pp. 573.
- Lepcha, N and Pradhan, D.K 2021. Additional information on the Fern-Diversity of Sikkim, India-Part I. *Science of Eastern Himalaya Journal* 1 (1): 12-44.
- Pradhan, D.K 2021. Additional information on the Fern-Diversity of Sikkim, India-Part II. *Science of Eastern Himalaya Journal* 1 (1): 45-53.