CHAPTER IV

SYSTEMATIC POSITION

Systematic position :

The genus Acrostichum is the only fern characteristic of brackish swamps. It is widely spread in the coastal regions of tropics and subtropics. The genus as described by Hooker & Baker 1868 included several hundred species. But along with advancements made in the knowledge of morphology of sporophytes the genus has shrunk to 1-4 sps. today.

Bower 1923-28 grouped this genus under pteroid ferns (Chart-I). He considers pteroid ferns as Dicksonoid derivatives. The series starts from Pteridium and Paesia both having a marginal receptacle and two lipped indusium as in Dicksonoid. The genus Pteris with intramarginal sorus and inconstant lower indusium is derived through Histopteris incisa and the broad expanse of sorus with a flat receptacle extended over the whole of the lower leaf surface leads to the Acrostichoid state seen in Acrostichum aureum.P.podophylla Swartz represents a stage leading to the Acrostichoid genera of pteroid ferns.

Christensen 1938 grouped it under Acrostichoid genera probably derived from Pteridioideae.

Ching 1940 keeps this genus under separate family Acrostichaceae and related to Aspidioid ferns.

Dickson 1946 also recognises the Acrostichaceae as separate family but he allied the family with Gymnogramaceae (Chart-II).

Copeland 1947 placed it in his Pteridaceae and consider its affinity to Pteris as the most probable (Chart-III).

Holttum 1949 treated Acrostichum as a member of Pteridoideae in his Dennstaedtiaceae (Chart-IV).

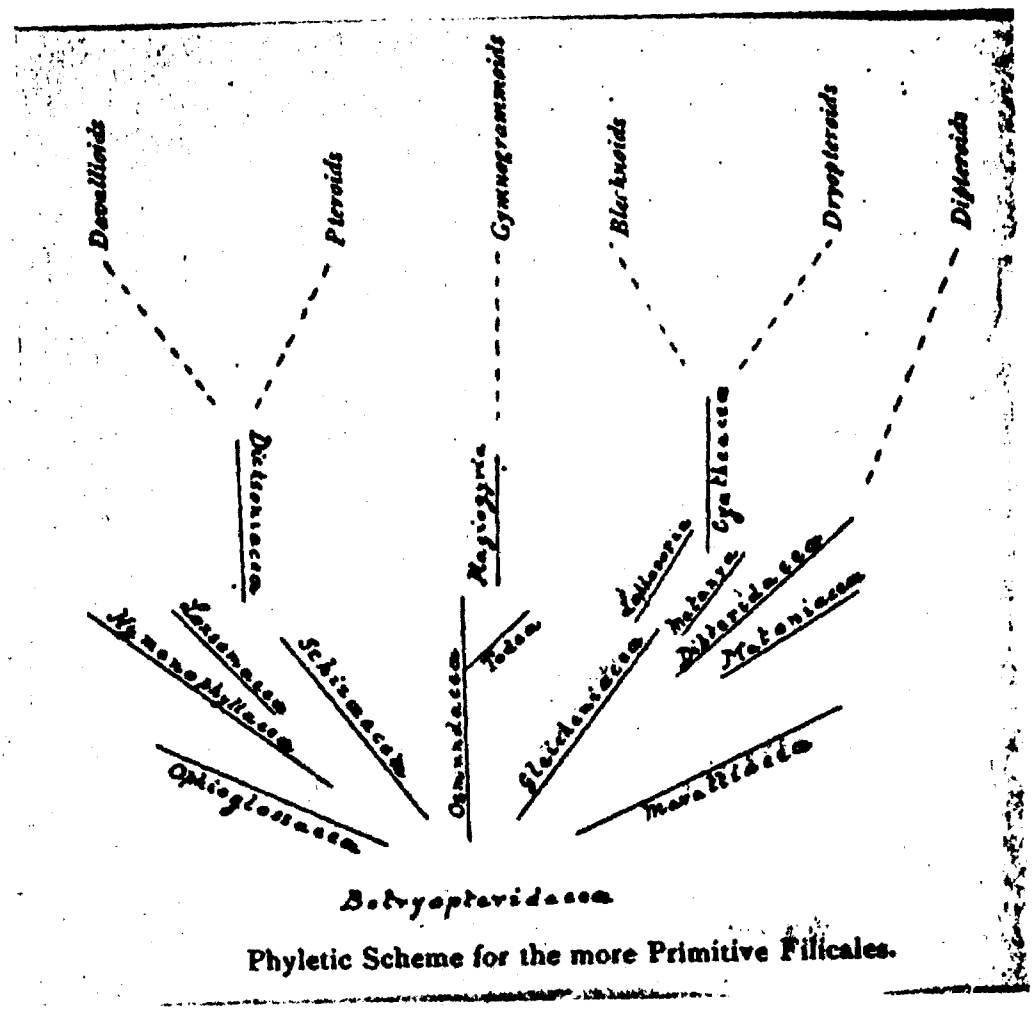
Pichi Sermolli 1958 groups this genus under Acrostichopteridaceae and relates it to Schizaeoid ferns. (Chart-V).

Mehara 1961 includes this genus under Pteridaceae and derives Pteridaceae from Schizaeaceous stock (Chart-VI).

Finally Nayar 1970 also classified this genus under Pteridaceae and relates it to Schizaeoid ferns (Chart-VII).

This indicates that with a few exceptions most of the taxanomists relate this genus to Pteridioid ferns.

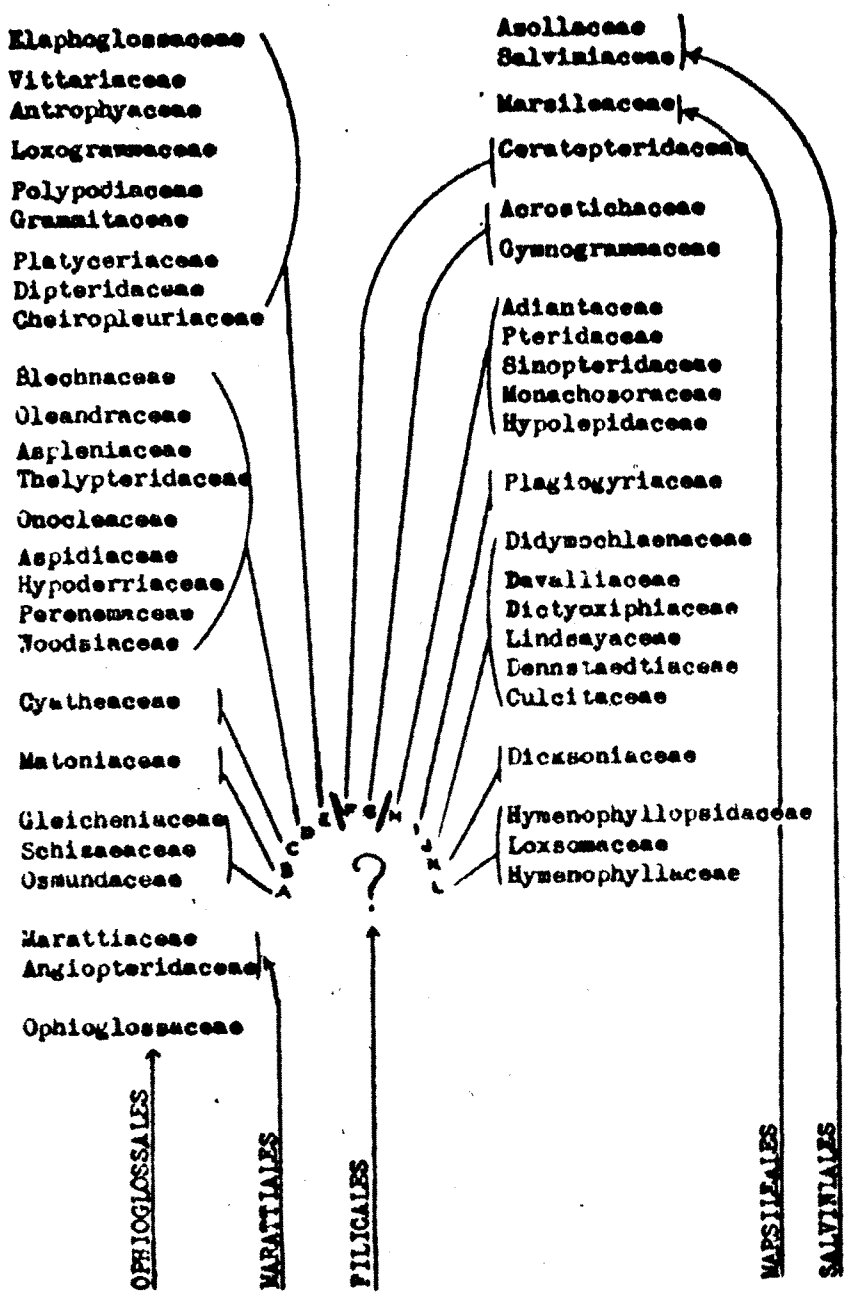
CHART – I



Phyletic Scheme for the more Primitive Filicales.

Phyletic scheme of Filicopsida by
Bower (1923-28)

CHART – II



Scheme of Classification of Filicopsida

by Dickson (1946)

Scheme of Classification of Filicopsida by Copeland (1947)

CHART – III

ORDER OPHIOGLOSSALES
FAMILY Ophioglossaceae
1. *Ophioglossum*
2. *Rhizoglossum*
3. *Botrychium*
4. *Helminthostachys*

ORDER MARATTIALES
FAMILY Marattiaceae
1. *Angiopteris*
2. *Macroglossum*
3. *Archangiopteris*
4. *Marattia*
5. *Christensenia*
6. *Danaea*

ORDER FILICALES
FAMILY 1 — Osmundaceae
1. *Osmunda*
2. *Todea*
3. *Leptopteris*

FAMILY 2 — Schizaeaceae
1. *Schizaea*
2. *Lygodium*
3. *Anemia*
4. *Mohria*

FAMILY 3 — Gleicheniaceae
1. *Gleichenia*
2. *Platyzoma*
3. *Stromatopteris*
4. *Sticherus*
5. *Dicranopteris*
6. *Hicriopteris*

FAMILY 4 — Loxsomaceae
1. *Loxsoma*
2. *Loxsomopsis*

FAMILY 5 — Hymenophyllaceae
1. *Mecodium*
2. *Craspedophyllum*
3. *Hemicyatheon*
4. *Sphaerocionium*
5. *Apteropteris*
6. *Microtrichomanes*
7. *Hymenophyllum*
8. *Meringium*
9. *Amphipterum*
10. *Myriodon*
11. *Buesia*
12. *Leptocionium*
13. *Rosenstockia*
14. *Serpyllopsis*
15. *Hymenoglossum*
16. *Cardiomanes*
17. *Vandenboschia*
18. *Polyphlebium*
19. *Pleuromanes*
20. *Gonocormus*
21. *Crepidopteris*
22. *Crepidomanes*
23. *Microgonium*
24. *Callistopteris*
25. *Nesopteris*
26. *Cephalomanes*
27. *Trichomanes*
28. *Feea*
29. *Didymoglossum*
30. *Lecanium*
31. *Selenodesmium*
32. *Davalliopsis*
33. *Macroglena*
34. *Abrodictyum*

FAMILY 6 — Pteridaceae
1. *Thyrsopteris*
2. *Dicksonia*
3. *Cystodium*
4. *Cibotium*
5. *Culcita*
6. *Saccoloma*
7. *Orthiopteris*
8. *Dennstaedtia*
9. *Microlepia*
10. *Monachosorum*
11. *Oenotrichia*
12. *Lindsaea*
13. *Tapeinidium*
14. *Sphenomeris*
15. *Odontosoria*
16. *Ormoloma*
17. *Isoloma*
18. *Schizoloma*
19. *Taenitis*
20. *Syngramma*
21. *Craspedodictyum*
22. *Leptolepia*
23. *Hypolepis*
24. *Paesia*
25. *Eriosorus*
26. *Jamesonia*
27. *Pterozonium*
28. *Pteridium*
29. *Histiopteris*
30. *Lepidocaulon*
31. *Pteris*
32. *Hemipteris*
33. *Schizostege*
34. *Ochropteris*
35. *Anopteris*
36. *Coniogramme*
37. *Neurocallis*
38. *Acrostichum*
39. *Cheilanthes*
40. *Neurosoria*
41. *Aleuritopteris*
42. *Aspidotis*
43. *Mildella*
44. *Cheiloplecton*
45. *Pellaea*
46. *Llavea*
47. *Doryopteris*
48. *Ormopteris*
49. *Actiniopteris*
50. *Cryptogramma*
51. *Onychium*
52. *Hemionitis*
53. *Bommeria*
54. *Trachypteris*
55. *Saffordia*
56. *Paraceterach*
57. *Gymnopteris*
58. *Pityrogramma*
58a. *Cerosora*
59. *Trismeria*
60. *Anogramma*
61. *Pleurosoriopsis*
62. *Asplenopsis*
63. *Adiantum*

FAMILY 7 — Parkeriaceae
1. *Ceratopteris*

FAMILY 8 — Hymenophyllopsidaceae
1. *Hymenophyllopsis*

FAMILY 9 — Davalliaceae
1. *Araiostegia*
2. *Leucostegia*
3. *Davallodes*
4. *Trogostolon*
5. *Davallia*
6. *Scyphularia*
7. *Humata*
8. *Parasorus*
9. *Oleandra*
10. *Nephrolepis*
11. *Arthropteris*
12. *Psammiosorus*

FAMILY 10 — Plagiogyriaceae
1. *Plagiogyria*

FAMILY 11 — Cyatheaceae
1. *Lophosoria*
2. *Amphidesmium*
3. *Cyathea*
4. *Trichopteris*
5. *Cnemidaria*
6. *Gymnosphaera*
7. *Schizocaena*

FAMILY 12 — Aspidiaceae
1. *Matteuccia*
2. *Onoclea*
2a. *Onocleopsis*
3. *Woodsia*
4. *Diacalpe*
5. *Peranema*
6. *Stenolepia*
7. *Acrophorus*
8. *Cheilanthopsis*
9. *Hypoderris*
10. *Polystichum*
11. *Lithostegia*
12. *Phanerophlebia*
13. *Cyclodium*
14. *Cyclopeltis*
15. *Didymochlaena*
16. *Rumohra*
17. *Maxonia*
18. *Polybotrya*
19. *Bolbitis*
20. *Egenolfia*
21. *Lomariopsis*
22. *Thysanosoria*
23. *Teratophyllum*
24. *Arthrobotrya*
25. *Lomagramma*
26. *Elaphoglossum*
27. *Microstaphyla*
28. *Rhipidopteris*
29. *Dryopteris*
30. *Stigmatopteris*
31. *Adenoderris*
32. *Ctenitis*
33. *Psomiocarpa*
34. *Dryopolystichum*
35. *Pteridrys*
36. *Atalopteris*
37. *Heterogonium*
38. *Stenosemia*
39. *Tectaria*
40. *Cionidium*
41. *Tectaridium*
42. *Luerssenia*
43. *Hemigramma*
44. *Quercifilix*
45. *Fadyenia*
46. *Camptodium*
47. *Pleuroderris*
48. *Amphiblestra*
49. *Dictyoxiphium*
50. *Hypoderris*
51. *Lastrea*
52. *Currania*
53. *Cyclosorus*
54. *Ampelopteris*
55. *Haplodictyum*
56. *Sphaerostephanos*
57. *Steganogramma*
58. *Dictyocline*
59. *Goniopteris*
60. *Meniscium*
61. *Cystopteris*
62. *Athyrium*
63. *Anisocampium*
64. *Hemidictyum*
65. *Callipteris*
66. *Diplaziopsis*

FAMILY 13 — Blechnaceae
1. *Blechnum*
2. *Salpichlaena*
3. *Doodia*
4. *Brainea*
5. *Sadleria*
6. *Woodwardia*
7. *Lorinseria*
8. *Stenochlaena*

FAMILY 14 — Aspleniaceae
1. *Asplenium*
2. *Loxoscaphe*
3. *Diellia*
4. *Ceterach*
5. *Pleurosorus*
6. *Holodictyum*
7. *Camptosorus*
8. *Antigramma*
9. *Schaffneria*

FAMILY 15 — Matoniaceae
1. *Matonia*
2. *Phanerosorus*

FAMILY 16 — Polypodiaceae
1. *Dipteris*
2. *Holttumiella*
3. *Cheiropleuria*
4. *Christiopteris*
5. *Platycerium*
6. *Polypodium*
7. *Goniophlebium*
8. *Thylacopteris*
9. *Dictymia*
10. *Synammia*
11. *Pleopeltis*
12. *Microgramma*
13. *Marginariopsis*
14. *Campyloneurum*
15. *Pessopteris*
16. *Phlebodium*
17. *Eschatogramme*
18. *Peltonium*
19. *Neocheiropteris*
20. *Lemmaphyllum*
21. *Drymotaenium*
22. *Paragramma*
23. *Weatherbya*
24. *Belvisia*
25. *Pyrrosia*
26. *Pteropsis*
27. *Niphidium*
28. *Microsorium*
29. *Diblemma*
30. *Leptochilus*
31. *Paraleptochilus*
32. *Colysis*
33. *Dendroglossa*
34. *Dendroconche*
35. *Drynariopsis*
36. *Pseudodrynaria*
37. *Aglaomorpha*
38. *Holostachyum*
39. *Thayeria*
40. *Merinthosorus*
41. *Photinopteris*
42. *Drynaria*
43. *Lecanopteris*
44. *Crypsinus*
45. *Pycnoloma*
46. *Grammatopteridium*
47. *Holcosorus*
48. *Oleandropsis*
49. *Selliguea*
50. *Arthromeris*
51. *Polypodiopsis*
52. *Grammitis*
53. *Glyphotaenium*
54. *Cochlidium*
55. *Scleroglossum*
56. *Nematopteris*
57. *Oreogrammitis*
58. *Xiphopteris*
59. *Calymmodon*
60. *Acrosorus*
61. *Loxogramme*
62. *Anarthropteris*
63. *Ctenopteris*
64. *Amphoradenium*
65. *Prosaptia*

FAMILY 17 — Vittariaceae
1. *Antrophyum*
2. *Pteridanetium*
3. *Polytaenium*
4. *Scoliosorus*
5. *Hecistopteris*
6. *Vittaria*
7. *Ananthacorus*
8. *Vaginularia*
9. *Monogramma*

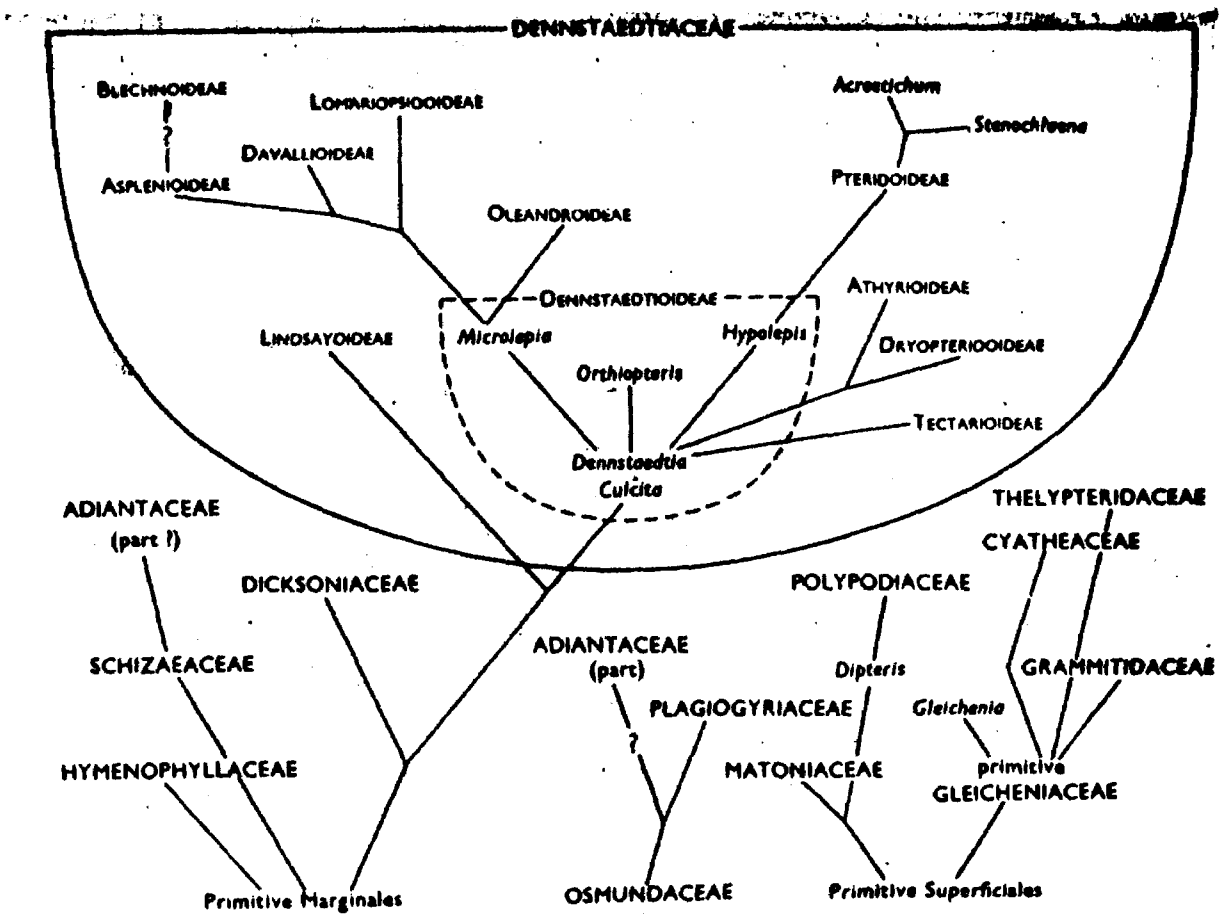
FAMILY 18 — Marsileaceae
1. *Pilularia*
2. *Regnellidium*
3. *Marsilea*

FAMILY 19 — Salviniaceae
1. *Salvinia*
2. *Azolla*

INDEX

PLATES

CHART- IV



Diagrams showing the interrelations of the various groups of ferns by Holttum (1949)

CHART – V

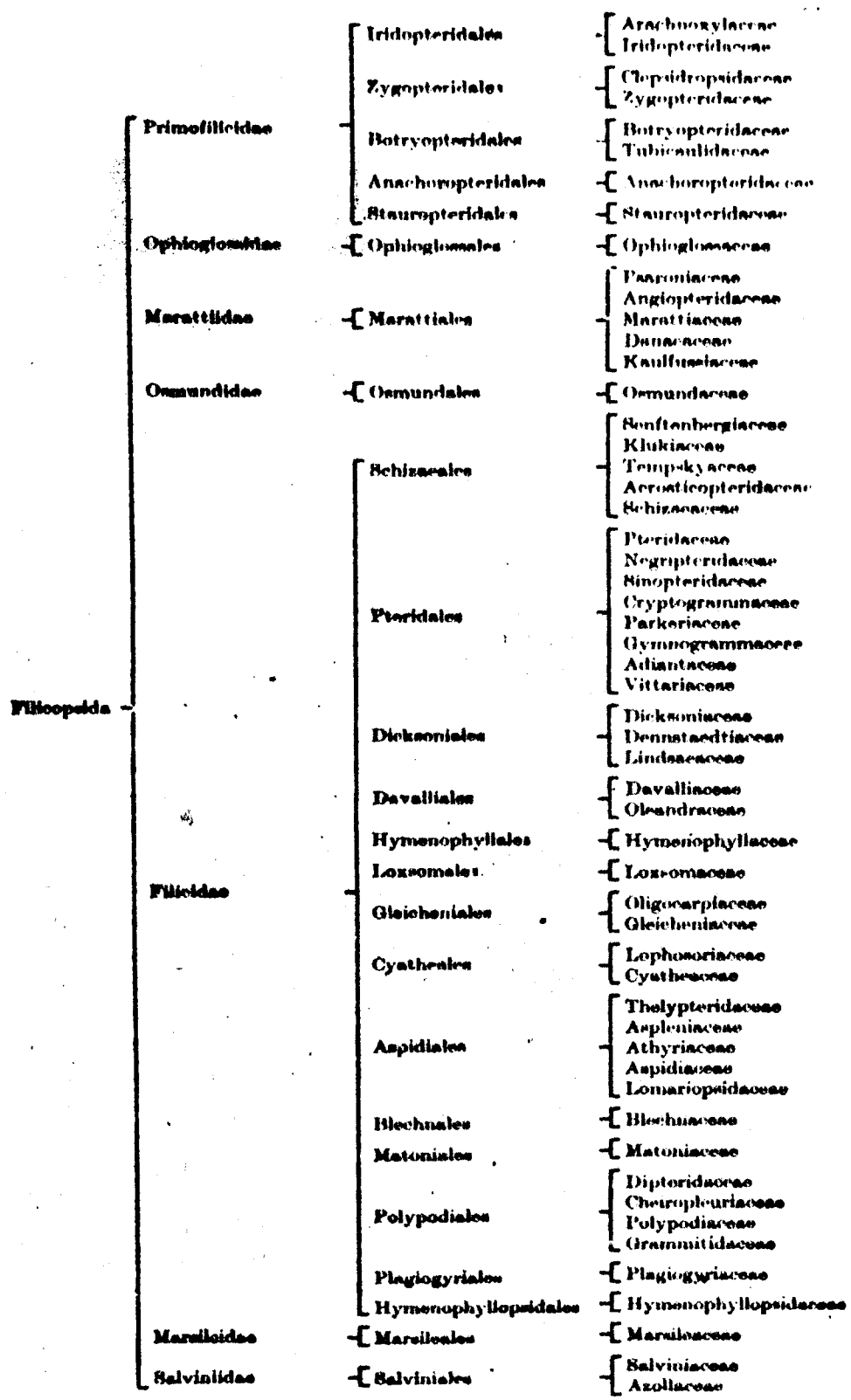


Diagram showing the inter relations of the various groups of ferns by Pichi Sermolli (1958)

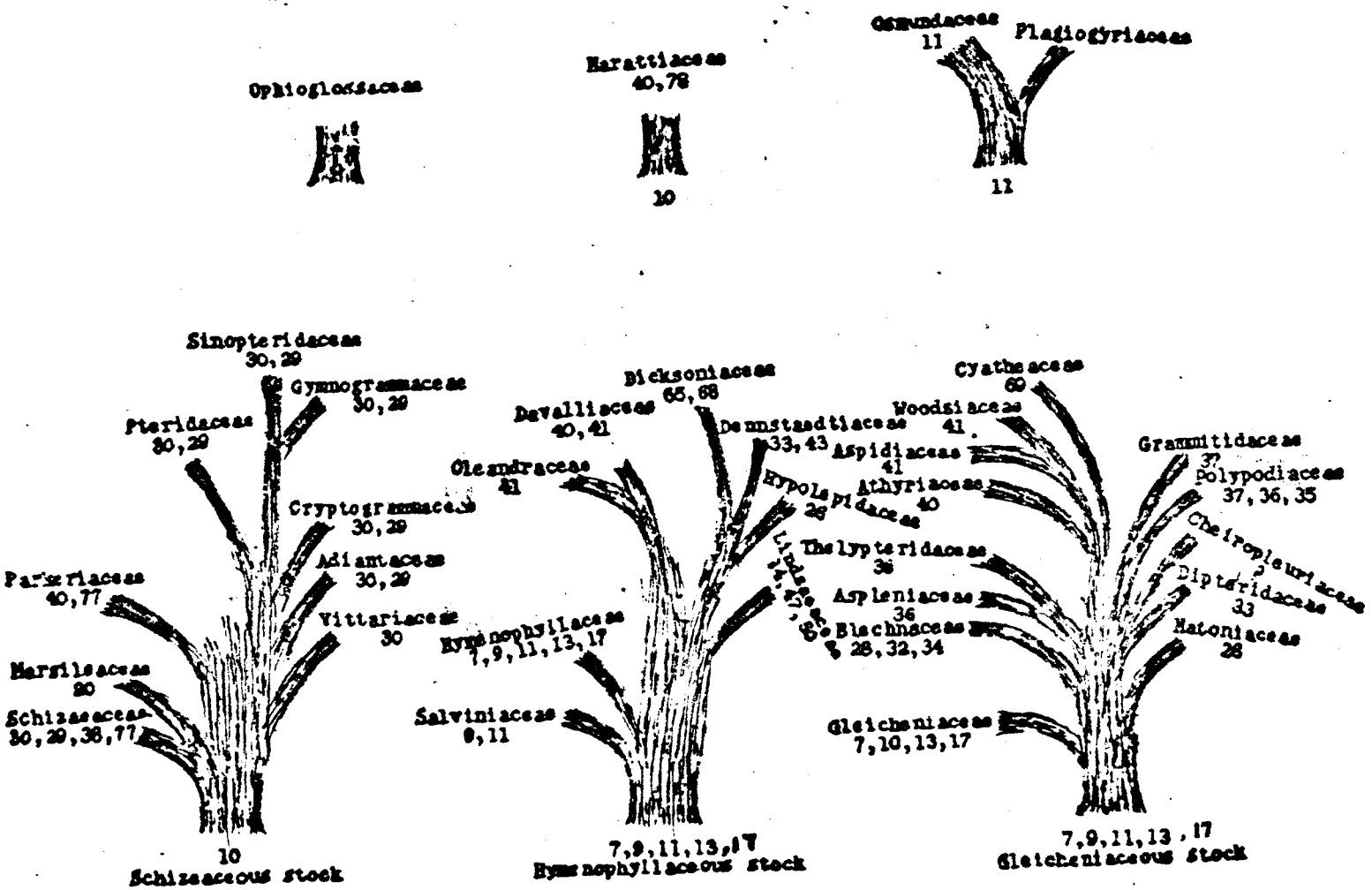
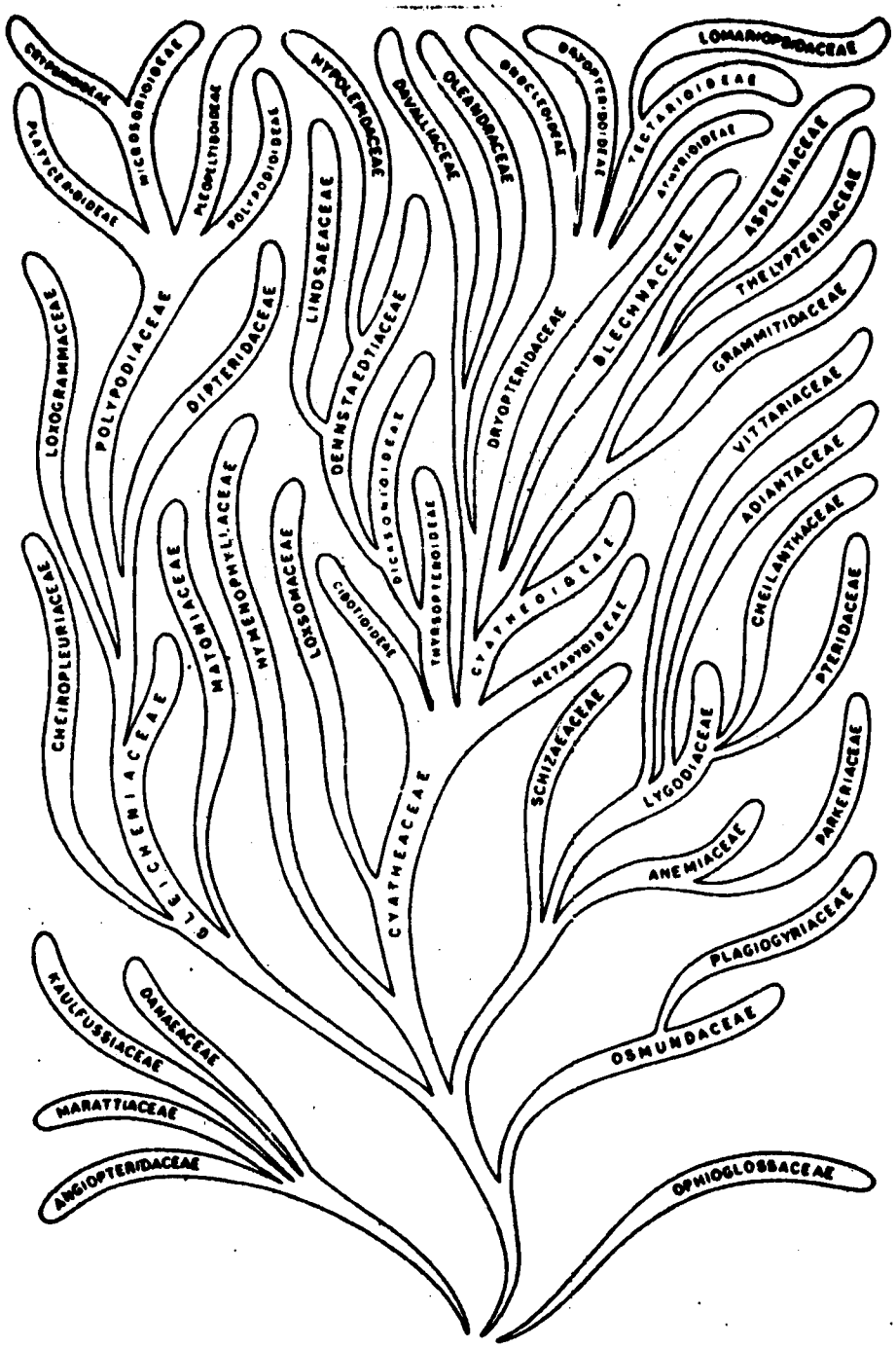


CHART-VI

Phyletic Scheme of Filicopsida by Mehra 1961

CHART-VII



Scheme of interrelations of the homosporous ferns

by Nayar 1970