5 CONCLUSION

This study documented 189 species belonging to 70 genera and 29 families. There are 173 species as new collections from South East Sulawesi and 28 species of it is new from Sulawesi for Herbarium Bogoriense. Two species presumed as new species, namely *Polystichum macroscalium* sp. nov and *Bolbitis pinnatifidis* sp. nov. Four species are new records from Sulawesi, that are *Coniogramme xinea*, *Ctenopteris subminuta*, *Lygodium borneense* and *Tectaria barberi*.

Ferns habit is varied, consisted of tree ferns, herbaceous ferns and filmy ferns. Rhizomes are varied as well, categorized into erect (caudex/rootstock), creeping, climbing and trunk. Based on attachment pattern of the scales there are basifix, pseudopeltate and peltate. The structure of the scales are divided into clathrate or not clathrate. The margins of the observed scales are entire, toothed or ciliate. Most of the colour of scales are brown to dark colour. The fronds are monomorphic, dimorphic and polymorphic. In addition to those findings, there are 13 types of soral variations such as sori arranged in strobili, Synangia, sporocarp, erect spike, sorophores, sori on the marginal of fronds covering with reflexed margins, sori acrostichoid, sori covered most of lower surface of lamina or particular pinnae, sori with a cup or tubular form indusia, pericostal, sori along the veins between costa and margins, sori round or elongate spreading on the veins and sori terminal on the free veins near margins.

Based on its habitat, there are nine types of ferns: terrestrial sun-ferns (27 species), terrestrial shade-ferns (72 species), climbing ferns of sheltered places (8 species), climbing ferns of exposed places (5 species), epiphytes of sheltered places (47 species), epiphytes of exposed places (8 species), river bank ferns (16 species), aquatic ferns (3 species) and rock-ferns (3 species).

The similarity of fern species at three different locations is low. Fern species are also used by local people for foods, medicine, ornamental plants, handycraft and construction. The identification key to the families, genera and species were developed.