

ABSTRAK

DELLA FITRIYAH. 2026. EKSPLORASI TUMBUHAN FAMILIA ORCHIDACEAE DI JALUR PENDAKIAN TALAGA BODAS – GUNUNG GALUNGGUNG SEBAGAI SUMBER BELAJAR BIOLOGI. Jurusan Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Siliwangi, Tasikmalaya.

Gunung Galunggung merupakan kawasan hutan pegunungan tropis yang mendukung pertumbuhan Orchidaceae, namun data eksplorasinya masih terbatas. Penelitian ini bertujuan mengetahui tingkat keragaman Orchidaceae di jalur pendakian Talaga Bodas – Gunung Galunggung sebagai dasar pengembangan sumber belajar biologi. Penelitian dilaksanakan pada November – Desember 2025. Penentuan lokasi dilakukan secara *purposive sampling* berdasarkan potensi anggrek pada stasiun penelitian, yaitu stasiun 1 di kawasan hutan pinus, serta stasiun 2 dan 3 pada kawasan hutan lindung. Metode penelitian menggunakan kuantitatif deskriptif melalui survei eksploratif pada plot kuadrat (5×5 m) di sepanjang transek 100 meter berdasarkan strata ketinggian. Hasil penelitian mengidentifikasi 15 spesies anggrek dari 9 genus dengan total 224 individu. Sebaran individu anggrek terbanyak ditemukan pada stasiun 1, yaitu 152 individu dari 8 spesies. *Agrostophyllum majus* dan *Coelogyne cobbiana* ditemukan pada setiap stasiun pengamatan. Genus *Coelogyne* mendominasi dengan 5 spesies, sedangkan *Coelogyne cobbiana* menjadi spesies dengan jumlah individu tertinggi, yaitu 69 individu. Sebagian besar anggrek berhabitus epifit (98,66%), dengan *Macodes petola* sebagai satu-satunya jenis terestrial. Nilai rata-rata indeks keanekaragaman Shannon-Wiener (H') sebesar 1,66 termasuk dalam kategori sedang, menunjukkan kondisi ekosistem relatif stabil, meskipun masih terdapat dominansi spesies tertentu serta pengaruh aktivitas antropogenik. Kondisi ekologi mikro seperti suhu (21,78–21,97°C) dan kelembapan udara (81,87–84,28%) mendukung pertumbuhan anggrek. Tingkat keanekaragaman kategori sedang menunjukkan variasi spesies yang cukup representatif, sehingga berpotensi dikembangkan sebagai sumber belajar biologi. Dengan demikian, hasil penelitian ini dapat diintegrasikan ke dalam perangkat pembelajaran berbasis potensi lokal, misalnya melalui *Booklet* digital pada materi Keanekaragaman Hayati tingkat SMA, guna menciptakan pembelajaran yang lebih kontekstual dan bermakna.

Kata Kunci: *Booklet*, Eksplorasi, Keanekaragaman hayati, Orchidaceae, Sumber belajar.

ABSTRACT

DELLA FITRIYAH. 2026. EXPLORATION OF ORCHIDACEAE FAMILY PLANTS ON THE TALAGA BODAS – MOUNT GALUNGGUNG CLIMBING TRAIL AS A BIOLOGY LEARNING RESOURCE. Department of Biology Education, Faculty of Teacher Training and Education, Siliwangi University, Tasikmalaya.

*Mount Galunggung is a tropical montane forest area that supports the growth of Orchidaceae, but data on its exploration remains limited. This study aims to determine the level of diversity of the Orchidaceae family along the Talaga Bodas–Mount Galunggung hiking trail as a basis for the development of biology learning resources. The research was conducted in November–December 2025. Site selection was carried out using purposive sampling based on the potential for orchids at the research stations, namely Station 1 in the pine forest area, and Stations 2 and 3 in the protected forest area. The research method employed descriptive quantitative analysis through an exploratory survey on 5×5 m square plots along a 100-metre transect based on elevation strata. The results identified 15 orchid species from 9 genera, totalling 224 individuals. The highest distribution of orchid individuals was found at Station 1, namely 152 individuals from 8 species. *Agrostophyllum majus* and *Coelogyne cobbiana* were found at every observation station. The genus *Coelogyne* dominated with 5 species, whilst *Coelogyne cobbiana* was the species with the highest number of individuals, namely 69 individuals. The majority of orchids were epiphytic (98.66%), with *Macodes petola* being the sole terrestrial species. The average Shannon-Wiener diversity index (H') of 1.66 falls within the moderate category, indicating a relatively stable ecosystem, although there remains dominance by certain species as well as the influence of anthropogenic activities. Microecological conditions such as temperature (21.78–21.97°C) and relative humidity (81.87–84.28%) support orchid growth. A moderate level of biodiversity indicates a sufficiently representative range of species, making it a potential resource for biology education. Consequently, the findings of this study can be integrated into teaching materials based on local resources, for example through digital Booklets on biodiversity for upper secondary school students, in order to create a more contextual and meaningful learning experience.*

Keywords: *Booklet, Exploration, Biodiversity, Orchidaceae, Learning resource.*