

Current biodiversity status, distribution, and prospects of seaweed in Indonesia: A systematic review

Publons ID	(not set)
Wos ID	WOS:001241129700001
Doi	10.1016/j.heliyon.2024.e31073
Title	Current biodiversity status, distribution, and prospects of seaweed in Indonesia: A systematic review
First Author	
Last Author	
Authors	Basyuni, M; Puspita, M; Rahmania, R; Albasri, H; Pratama, I; Purbani, D; Aznawi, AA; Mubaraq, A; Mustaniroh, SSA; Menne, F; Rahmila, YI; Salmo III, SG; Susilowati, A; Larekeng, SH; Ardli, E; Kajita, T;
Publish Date	MAY 30 2024
Journal Name	HELIYON
Citation	
Abstract	<p>Seaweeds are a valuable component of marine biodiversity that play multiple essential roles in Indonesia's coastal ecology and economy. This systematic review (1993-2023) aimed to provide an updated overview of seaweed distribution, biodiversity, cultivation, and industry in Indonesia. The literature search derived from major databases, Scopus, Web of Science (WoS) and ResearchGate (RG), and Google Scholar (GS) retrieved 794 studies, after removing 80 duplicates, identified 646 studies passed title and abstract screening that satisfied all criteria: Indonesia, seaweed, seaweed biodiversity and composition, which consisted of 80 exclusion studies. Full text screening decided 194 studies were selected based on the specific inclusion criteria (at least two criteria passed: seaweed distribution site, species, cultivation, and habitat). After additional filtering, 137 studies were included for extraction and analysis. We found that Indonesia is rich in seaweed biodiversity, with at least 325 identified species consisting of 103 Chlorophyceae (green algae), 167 Rhodophyceae (red algae), and 55 Phaeophyceae (brown algae), respectively. Seaweed distribution and abundance in Indonesia are influenced by environmental factors, including nutrients, grazing, competition, physical tolerance, light intensity, and degree of water circulation. Seaweed species are predominantly found in mangrove forests and coral reefs on the islands of Sumatra, Java, Kalimantan, and Sulawesi. This review provides an up-to-date and comprehensive overview of the distribution and biodiversity of seaweeds in Indonesia, highlighting the ecological, economic, and cultivation of marine resources. In addition, we identify</p>
Publish Type	Journal
Publish Year	2024
Page Begin	(not set)
Page End	(not set)
Issn	
Eissn	2405-8440
Url	https://www.webofscience.com/wos/woscc/full-record/WOS:001241129700001
Author	Dr.rer.nat. ERWIN RIYANTO ARDLI, M.Sc.