1. Record Nr. UNINA9910908373603321 Autore Steinberg Christian E. W Titolo Aquatic Animal Nutrition: Plant Preparations / / by Christian E.W. Steinberg Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 9783031709388 9783031709371 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (536 pages) Disciplina 577.6 577.7 Soggetti Freshwater ecology Marine ecology **Ecology** Vertebrates Invertebrates Nutrition Freshwater and Marine Ecology Vertebrate Zoology Invertebrate Zoology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1. Aquatic Animal Nutrition: Plant Preparations 'Ever Tried. Nota di contenuto Ever Failed. Try again.' -- Chapter 2. Medicinal Plant Survey Good for Humans, Good for Fishes! -- Chapter 3. Individual Medicinal Plants 'Good for Humans, Good for Fishes!' -- Chapter 4. Food and Spice Plants – Good for Humans. Good for Fishes Revisited -- Chapter 5.

Fruits and Essential Oils - Good for Humans, Good for Fishes Revisited -- Chapter 6. Fermentation Residues and Miscellanies - What Else to Offer? -- Chapter 7. Macroalgae, Macrophytes, Filamentous Algae – 'Not to Everyone's Taste'.

This volume first covers the supplementation of aquafeeds with Sommario/riassunto

> terrestrial plant material used in human medicine and nutrition. Mainly based on the "trial and error" approach, many supplements enhance

growth, immunity and resistance to stress. However, other supplements appear to be ineffective and some have adverse effects. A robust and guiding hypothesis for sup-plementation is not apparent. Therefore, the book proposes the use of artificial intelligence to end the trial-anderror phase. In addition, a graded dosing is rarely used, especially in the low-dose range, so the physiological mechanisms behind the supplements are often only partially understood. This topic of aquatic animal nutrition is still in its infancy. Chapters cover medicinal plants in general, selected medicinal plants in detail, food plants, fruits, essential oils, fermentation residues, and genetically modified plants. One chapter attempts to answer the question of what mechanism may underlie ineffective or even harmful supplementation. Overall, the importance of the intestinal microflora is becoming increasingly clear and points to the imperative need to include gut microbiota in replacement studies. Based on the few epigenetic studies currently available, the importance of these processes is demonstrated. The need to integrate such approaches into future studies is emphasized. The so-called hologenomics approach is inevitable. Can adverse effects be mitigated by adding functional feed ingredients such as prebiotics or probiotics? This volume concludes with aquatic plants (macroalgae, filamentous algae, and macrophytes) as food sources for natural and farmed aquatic animals. Can aquaculture learn from natural aquatic herbivores?.