

## Chinese Marine Materia Medica Resources: Status and Potential

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### Abstract

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Chinese marine materia medica (CMMM) is a vital part of traditional Chinese medicine (TCM). Compared with terrestrial TCM, CMMM, derived from specific marine habitats, possesses peculiar chemical components with unique structures reflecting as potent pharmacological activities, distinct drug properties and functions. Nowadays, CMMM appears to be especially effective in treating such difficult diseases as cancers, diabetes, cardio-cerebrovascular diseases, immunodeficiency diseases and senile dementia, and therefore has become an important medicinal resource for the research and development of new drugs. In recent years, such development has attracted wide attention in the field of medicine. In this study, the CMMM resources in China were systematically investigated and evaluated. It was found that the historic experiences of Chinese people using CMMM have continuously accumulated over a period of more than 3600 years, and that the achievements of the research on modern CMMM are especially outstanding. By June 2015, 725 kinds of CMMMs from Chinese coastal sea areas have been identified and recorded, covering 1552 organisms and minerals. More than 3100 traditional prescriptions containing CMMMs have been imparted and inherited. However, the number of CMMMs is less than the 8188 terrestrial TCMS, from more than 12,100 medicinal terrestrial plants, animals and minerals. In the future, the research and development of CMMM should focus on the channel entries (TCM drug properties), compatibility, effective ingredients, acting mechanisms, drug metabolism and quality standard. This study reveals the high potential of CMMM development.