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BOOK REVIEW

The culmination of Ali Esmail Al-Snafi's monumental work of ethnopharmacological interest: a review of the *Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants – Volume 9* (ISBN: 978-93-6388-552-3)

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Abstract: This book review critically examines *Volume 9* (2024) of Prof. Ali Esmail Al-Snafi's *Encyclopaedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants*; the concluding instalment of a decade-long scholarly effort to catalogue Iraq's medicinal plants and record the latest understanding of their constituents and of their pharmacological potential. Alphabetically covering species from *Tamarix mannifera* to *Zygophyllum fabago*, the volume adheres to the structural conventions established in preceding entries, offering standardized chapters that summarize taxonomic data, traditional uses, chemical constituents, and pharmacological effects for 29 plant species. The encyclopaedia constitutes a monumental contribution to the documentation of Iraq's ethnobotanical heritage and its ethnopharmacological potential. While *Volume 9* is more up-to-date than earlier volumes of the same encyclopaedia in terms of literature coverage, the work shares structural limitations with its predecessors. Chief among these are the absence of visual elements, of analytical contents, and of an index; features whose inclusion would have greatly enhanced the work's navigability and didactic potential. Nonetheless, the encyclopaedia stands as a valuable reference for ethnopharmacologists and regional scholars. Its significance lies not only in the accurate data it consolidates, but in the scholarly continuity and bibliographic intent it embodies. This book review reflects on the work's contributions and limitations, thereby hinting at how future editions or adaptations could evolve in order to improve accessibility and research utility. The encyclopaedia is recommended for academic libraries serving the medical, biomedical, or pharmaceutical sciences as well as for scholars engaged in ethnopharmacological research.

Keywords: encyclopaedia; ethnobotany; ethnopharmacology; Iraq; medicinal plants

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Background

The use of medicinal plants constitutes a cornerstone of Islamic medicine (Ahmad *et al.*, 2009), and several efforts have been made to catalogue species of ethnobo-

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Table 1. Overview of the 29 medicinal plants included in *Volume 9* of the *Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants*, alongside a list of the pharmacological effects discussed for each, and the total number of references cited in the corresponding chapter. Note: the terminology used to describe pharmacological effects in this table closely follows that of the original work, with minor adjustments, while the reference count for each entry reflects the total number of citations throughout the full chapter dedicated to that plant, not solely those pertaining to its pharmacological effects.

Medicinal plants	Pharmacological effects discussed	References
Tamarix mannifera	anticancer effects	14
Tamus communis	anticancer, antioxidant, xanthine oxidase-inhibitory, anti-inflammatory, antimicrobial, anti-acetylcholinesterase, and side effects	33
Taraxacum officinale	hepatoprotective, antibacterial, antiviral, antiparasitic, antioxidant, anti-inflammatory, analgesic, anti-cancer, antidiabetic, gastrointestinal, anti-obesity, hypolipidaemic, antidepressant, neuroprotective, diuretic, anti-urolithiatic, nephroprotective, reproductive, and anti-fatigue effects; also doses and toxicity	97
Teucrium chamaedrys	antibacterial, antifungal, antiviral, antiparasitic, anticancer, antioxidant, anti-inflammatory, and analgesic effects; also on endometriosis and toxicity	52
Teucrium polium	antioxidant, cardiovascular, hypolipidaemic, gastrointestinal, antimicrobial, anticancer, antidiabetic, reproductive, wound-healing, acetylcholinesterase-inhibitory, analgesic, antipyretic, anti-inflammatory, antiparasitic, hepatoprotective, nephroprotective, neuroprotective, and anticonvulsant effects; also toxicity	116
Thevetia neriifolia	cardiovascular, antimicrobial, anticancer, antioxidant, insecticidal, antidiabetic, reproductive, hypolipidaemic, and anti-urolithiatic effects; also toxicity	59
Thuja occidentalis	anticancer, antioxidant, antibacterial, antifungal, antiviral, gastrointestinal, anti-inflammatory, neuropharmacological, immunological, antidiabetic, protective, antiparasitic, antipyretic, other, and side effects; also on the treatment of alopecia, polycystic ovary syndrome, and oral ulcers, as well as toxicity	73
Thymus kotschyanus	antibacterial, antifungal, antiviral, insecticidal, antioxidant, anticancer, hypoglycaemic, hypolipidaemic, anti-inflammatory, analgesic, and cardiovascular effects; also on the central nervous system, on the treatment of ulcerative colitis and irritable bowel syndrome, as well as toxicity	40
Tribulus terrestris	anti-inflammatory, analgesic, antimicrobial, reproductive, anticancer, urinary, cardiovascular, dermatological, antiparasitic, insecticidal, repellent, hypolipidaemic, neuroprotective, anxiolytic, antidiabetic, nephroprotective, hepatoprotective, antioxidant, and side effects; also on smooth muscles, on sport and health markers, as well as toxicity	147
Trifolium arvense	wound-healing effects	15

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tanical interest that are native to Iraq (Al-Douri, 2000). In recent decades, Iraq's challenging sociopolitical landscape has led many of tis citizens to turn to traditional remedies for the management of chronic diseases (Fadheel and Mohammed, 2024). Within this framework, the *Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants* represents the first English-language work of this scope to systematically record both the chemical constituents and pharmacological profiles of Iraq's medicinal plants. The first volume of the encyclopaedia was published in 2015 (Al-Snafi, 2015), with subsequent volumes released periodically in the years that followed.

Summary

This book review focuses on the ninth (and, most likely, final) volume of Prof. Ali Esmail Al-Snafi's *Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants* (Al-Snafi, 2024). This extensive work organizes Iraqi medicinal plants alphabetically, and the present volume covers entries from *Tamarix mannifera* to *Zygophyllum fabago*. Like the earlier volumes, *Volume 9* is published as a softcover book, featuring the same preface as the inaugural volume (Al-Snafi, 2015) and adopting the single-column chapter layout that is consistent across the series. Each chapter adheres to a standardized format, typically including the plant's synonyms, taxonomic classification, common names, distribution, physical description, traditional uses, the parts used medicinally, chemical constituents, pharmacological effects, and references. Table 1 offers an overview of the 29 medicinal plants included in the herein reviewed volume, accompanied by a list of the pharmacological effects discussed and the number of references cited for each entry. Notably, the volume is also consistent with its predecessors in lacking illustrations of any kind, featuring only a very basic table of contents, and having no index.

Critical analysis

Professor Ali Esmail Al-Snafi (of the University of Thi-Qar, Nasiriyah, Iraq) is a renowned and prolific eth-

Table 1. (continued)

Medicinal plants	Pharmacological effects discussed	References
Trifolium pratense	anticancer, antimicrobial, hypolipidaemic, antioxidant, anti-inflammatory, analgesic, neuroprotective, antidiabetic, dermatological, hormonal, antidepressant, and side effects; also on menopausal symptoms and on the contraction of the prostate, as well as toxicity	119
Trifolium repens	antioxidant, hepatoprotective, nephroprotective, wound-healing, anticancer, anti-inflammatory, antibacterial, anticestodal, α-amylase-inhibitory, lipase-inhibitory, anti-cholinesterase, and oestrogenic effects	30
Trigonella foenum-graecum	anticancer, antimicrobial, neuropharmacological, antioxidant, reproductive, galactagogue, antidiabetic, hypolipidaemic, anti-inflammatory, analgesic, antipyretic, anti-fatigue, hepatoprotective, nephroprotective, respiratory, immunological, gastrointestinal, antiparasitic, dermatological, and adverse effects; also on bone mineralisation, as well as toxicity	177
Tropaeolum majus	antimicrobial, anticancer, reproductive, antioxidant, diuretic, cardiovascular, hypolipidaemic, anti-inflammatory, analgesic, protective, antidiabetic, insecticidal, and side effects; also on the treatment of acute bronchitis, as well as toxicity	52
Ulmus campestris	antioxidant, gastroprotective, hepatoprotective, vascular, antifungal, xanthine oxidase-inhibitory, anti-inflammatory, analgesic, and antipyretic effects; also toxicity	10
Urtica dioica	anticancer, antimicrobial, antiparasitic, antidiabetic, neuropharmacological, antioxidant, dermatological, protective, reproductive, gastrointestinal, anti-inflammatory, analgesic, antipyretic, immunomodulatory, cardiovascular, respiratory, anti-obesity, hypolipidaemic, anti-urolithiatic, anti-ageing, and side effects; also on prostatitis and lower urinary tract symptoms, on tinnitus, as well as toxicity	168
Urtica pilulifera	anticancer, antidiabetic, antioxidant, anti-mutagenic, anti-inflammatory, antimicrobial, insecticidal, and other effects; also on the treatment of urinary problems	36
Verbena officinalis	antimicrobial, immunological, antioxidant, anticancer, hypolipidaemic, cardiovascular, anti-inflammatory, analgesic, antiparasitic, reproductive, anti-urolithiatic, gastroprotective, antidiarrheal, antidepressant, anticonvulsant, anxiolytic, sedative, hepatoprotective, other, and side effects; also on exercise training and stress, on the treatment of gingivitis and Alzheimer disease, as well as toxicity	74
Veronica beccabunga	antioxidant, antimicrobial, and anticancer effects	17
Vinca rosea (*Catharanthus roseus*)	antimicrobial, antiparasitic, anticancer, reproductive, antidiabetic, gastrointestinal, anti-inflammatory, cardiovascular, hypolipidaemic, wound-healing, antipsoriatic, antioxidant, and side effects; also on the central nervous system, as well as toxicity	111

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nopharmacologist with over 30 years of experience, and the *Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants* is his monumental, decade-long endeavour. The encyclopaedia constitutes an unparalleled aggregation of accurate phytopharmacological data regarding medicinal plants native to or documented in Iraq and, in my view, is a work worthy of praise for its novelty, depth, accuracy, and consistency. Through this effort, Al-Snafi has offered not only Iraqi scholars, but also the wider ethnopharmacological community, a valuable resource to inform and inspire future research. *Volume 9* concludes the intended scope of the work, is well up-to-date in its references, and stands as a testament to the author's sustained commitment to systematically covering the relevant literature. However, it also shares several limitations with the earlier volumes of the encyclopaedia.

Firstly, the encyclopaedia suffers from the absence of visual aids. While the inclusion of plant photographs might have imposed considerable printing costs – no small matter given the size of each volume – I see no compelling reason for the omission of structural diagrams of pharmacologically active constituents, or mechanistic illustrations for the explanation of complex effects reported in experimental and clinical studies. This structural omission diminishes accessibility for visual learners and early-career researchers lacking field-specific training in morphological plant identification; an area where visual cues are often critical. It also renders the text somewhat monotonous, at times difficult to follow, and less engaging overall.

Secondly, the absence of an analytical table of contents and an index considerably limits the work's navigability, particularly for users attempting to locate therapeutic compounds, phytochemicals, or taxonomic families at a glance. This is not a conventional encyclopaedia composed of compact entries, where such features might be dispensable. Rather, it is a compilation of lengthy chapters (each averaging 27.5 pages in the reviewed volume) that are organized alphabetically and are laden with botanical, chemical, pharmacological, and clinical terminology. For those, like myself, who value physical reference works, this limitation is particularly striking.

Thirdly, although *Volume 9* is notably more current in terms of its literature citations than earlier volumes of the *Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants*, this temporal discrepancy is an inherent challenge of publishing multivolume works serially, particularly when these are sin-

Table 1. (continued)

Medicinal plants	Pharmacological effects discussed	References
Viola odorata	antioxidant, anticancer, hepatoprotective, nephroprotective, antimicrobial, antiviral, antiparasitic, anti-inflammatory, antipyretic, analgesic, cardiovascular, hypolipidaemic, antidiabetic, hypnotic, sedative, antidepressant, memory-enhancing, neuroprotective, immunological, respiratory, diuretic, laxative, dermatological, and cholinesterase-inhibitory effects; also on allergic rhinitis, on benign prostate hyperplasia, as well as toxicity	85
Vitex agnus-castus	antimicrobial, antiparasitic, anticancer, antioxidant, cardiovascular, antidiabetic, reproductive, postmenopausal, hormonal, neuropharmacological, anti-inflammatory, analgesic, immunological, protective, gastroprotective, and side effects; also on premenstrual syndrome, on the treatment of hyperprolactinaemia and mastodynia, on fracture healing, as well as toxicity	136
Vitis vinifera	antimicrobial, anticancer, antioxidant, hypolipidaemic, cardiovascular, analgesic, anti-inflammatory, antidiabetic, neurological, dermatological, and side effects; also on bladder contractility, on platelet aggregation, as well as toxicity	172
Withania somnifera	anticancer, neuropharmacological, antimicrobial, immunological, antiparasitic, antidiabetic, antioxidant, adaptogenic, anti-inflammatory, endocrine, reproductive, acetylcholinesterase-inhibitory, cardiovascular, hypolipidaemic, dermatological, antivenom, and side effects; also toxicity	162
Xanthium strumarium	antioxidant, antidiabetic, antimicrobial, antiparasitic, anticancer, anti-inflammatory, analgesic, hypolipidaemic, diuretic, dermatological, anti-allergic, anti-urolithiatic, cardioprotective, anticonvulsant, and side effects; also toxicity	136
Zea mays	anticancer, anti-inflammatory, analgesic, antimicrobial, antioxidant, hepatoprotective, nephroprotective, neuropharmacological, hypolipidaemic, anti-obesity, anti-urolithiatic, diuretic, antiparasitic, immunological, hypotensive, dermatological, aphrodisiac, and side effects; also on the treatment of diabetes and its complications, on the treatment of benign prostatic hyperplasia, as well as toxicity	104
Ziziphus jujuba	anticancer, antioxidant, protective, antidiabetic, hypolipidaemic, anti-obesity, cardiovascular, dermatological, reproductive, gastrointestinal, anti-inflammatory, antipyretic, antimicrobial, neuropharmacological, immunological, respiratory, anti-genotoxic, diuretic, and side effects; also on jaundice, as well as toxicity	145
Ziziphus spina-christi	anticancer, antimicrobial, antiparasitic, anti-inflammatory, analgesic, antidiabetic, protective, dermatological, antioxidant, neuropharmacological, reproductive, vascular, gastrointestinal, anti-obesity, and side effects; also toxicity	102
Zygophyllum fabago	cytotoxic, antimicrobial, antidiabetic, antileishmanial, anti-inflammatory, and side effects	36

gle-authored. While understandable, it inevitably compromises cohesion and uniformity.

Finally, occasional typographical errors, minor formatting inconsistencies, and abrupt transitions between paragraph segments within chapter subsections are evident, but do not detract significantly from the work's value. These should be understood as byproducts of the encyclopaedia's size, the publisher's proofreading practices, and the genre's constraints.

Readership

The encyclopaedia of Prof. Al-Snafi, as a whole, stands as a reliable and essential reference for ethnopharmacologists worldwide. No library focused on medical, biomedical, or pharmaceutical sciences should be considered complete without a copy of this work on its shelves. I also firmly believe that Iraqi pharmacologists, toxicologists, pharmacists, physicians, and postgraduate students in particular will appreciate the rich trove of knowledge it provides, as it may well guide them in identifying unmet needs in ethnopharmacological inquiry – needs that could inspire compelling research questions worthy of their time, intellect, and resources.

Conclusion

Volume 9 of Al-Snafi's *Encyclopaedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants* brings to completion a monumental scholarly enterprise: one that preserves, organizes, and critically engages with Iraq's medicinal plant knowledge and ethnopharmacological potential in a manner unmatched in the English language. Despite the structural limitations outlined in this book review, the encyclopaedia constitutes a major contribution to regional and global ethnopharmacology, and a testament to the author's expertise in the field. Future editions and adaptations should prioritize practicability and illustration.

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The author of this book review (AZ) serves as the editor of the journal and holds a majority ownership stake in its publisher (St Cuthbert Press Ltd).

Data availability statement

Not applicable.

References

Ahmad M., Khan M. A., Marwat S. K., Zafar M., Khan M. A., Hassan T. U., *et al.*: Useful medicinal flora enlisted in Holy Quran and Ahadith. *Am. Eurasian J. Agric. Environ. Sci.* 5(1): 126–140 (2009).

Al-Douri N. A.: A survey of medicinal plants and their traditional uses in Iraq. *Pharm. Biol.* 38(1): 74–79 (2000). https://doi.org/10.1076/1388-0209(200001)3811-bft074

Al-Snafi A. E.: Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants – Volume 1. Khanna: *Rigi Publication* (2015).

Al-Snafi A. E.: Encyclopedia of the Constituents and Pharmacological Effects of Iraqi Medicinal Plants – Volume 9. Khanna: *Rigi Publication* (2024).

Fadheel Q. J., Mohammed R. A.: Study of the spread of medicinal herbs use among patients suffering from chronic diseases in Iraq. *Pol. Merkur. Lekarski* 52(1): 73–78 (2024). https://doi.org/10.36740/merkur202401112

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