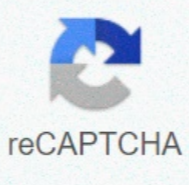


I'm not robot



**Continue**



## Erythrina abyssinica medicinal uses pdf

**Marula tree medicinal uses. Cassia alata medicinal uses. Medicinal uses of ashoka leaves. Rabbitbrush medicinal uses.**

Evidence-Based Complementary and Alternative Medicine/2021/Article/Review Article | Open AccessVolume 2021 | Article ID 5513484 | Baker Obakiro,1,2,6Ambrose Kipro,2,6Elizabeth Kigundu,3Isaac K'Owino,5,6Mark Peter Odero,2,6Scolastica Manyim,2,6Timothy Omara,2,6,9Jane Namukobe,8Richard Oriko Owor,10Yahaya Gavamukulya,7and Lydia Bunalema4Academic Editor: Riaz UllahBackground. Many studies have been undertaken on the medicinal values of *Erythrina abyssinica* Lam. ex DC. (Fabaceae). The details, however, are highly fragmented in different journals, libraries, and other publication media. This study was therefore conducted to provide a comprehensive report on its ethnobotany, ethnomedicinal uses, phytochemicals, and the available pharmacological evidence supporting its efficacy and safety in traditional medicine.



Method. We collected data using a PROSPERO registered systematic review protocol on the ethnobotany, phytochemistry, and ethnopharmacology of *Erythrina abyssinica* from 132 reports that were retrieved from electronic databases. Documented local names, morphology, growth habit and habitat, ethnomedicinal and nonmedicinal uses, diseases treated, parts used, method of preparation and administration, extraction and chemical identity of isolated compounds, and efficacy and toxicity of extracts and isolated compounds were captured. Numerical data were summarized into means, percentages, and frequencies and presented as graphs and tables. Results. *Erythrina abyssinica* is harvested by traditional herbal medicine practitioners in East, Central, and South African communities to prepare herbal remedies for various human and livestock ailments. These include bacterial and fungal infections, tuberculosis, malaria, HIV/AIDS, diarrhea, cancer, meningitis, inflammatory diseases, urinary tract infections, wounds, diabetes mellitus, and skin and soft tissue injuries.



Different extracts and phytochemicals from parts of *E. abyssinica* have been scientifically proven to possess anti-inflammatory, antibacterial, antioxidant, antiparasitic, antiproliferative, antifungal, antimycobacterial, antidiarrheal, anti-HIV 1, antidiabetic, and antiobesity activities.



This versatile pharmacological activity is due to the abundant flavonoids, alkaloids, and terpenoids present in its different parts. Conclusion. *Erythrina abyssinica* is an important ethnomedicinal plant in Africa harboring useful pharmacologically active phytochemicals against various diseases with significant efficacies and minimal toxicity to mammalian cells. Therefore, this plant should be conserved and its potential to provide novel molecules against diseases be explored further. Clinical trials that evaluate the efficacy and safety of extracts and isolated compounds from *E. abyssinica* are recommended.1. Introduction*Erythrina abyssinica* Lam. ex DC. (Fabaceae) is an important medicinal plant as evidenced by the existence of its names in various local languages and high frequency of citation in ethnobotanical surveys [1–4]. The genus *Erythrina* derives from the Greek word “erythros,” translated to mean red (a reflection of the showy red flowers of its various species). The epithet “abyssinica” means “from Ethiopia” [5].



Plants in this genus are usually referred to as “coral trees” due to their red flowers and branches that resemble the shape of sea coral [7]. *Erythrina abyssinica* is a deciduous leguminous tree native to East Africa but also found in Central and South Africa [8, 9]. Tropical Asia and Central America have *E. abyssinica* as an exotic species. The common English names of *E. abyssinica* are coral tree, Uganda coral, kaffir boom, erythrina, flame tree, red-hot-poker tree, and lucky-bean tree [10]. Some of the local names used across indigenous communities are summarized in Table 1. Medicinal plants have been a veritable source of cure for a number of human and livestock diseases, and thus, they are widely used in many communities. This is because plants house abundant secondary metabolites (phytochemicals) with potential pharmacological activities. These include flavonoids, alkaloids, terpenoids, phenols, chalcones, aromatic hydrocarbons, chromones, and coumarins. It is these phytochemicals that are locally extracted in herbal preparations and used as remedies for the management of several diseases. The World Health Organization (WHO) estimated that 80% of the world’s population especially in low- and middle-income countries rely on herbal medicines for primary health care [30]. The use of herbal medicines in the management of several ailments among people continues to gain momentum due to their availability, affordability, perceived effectiveness, and cultural acceptability across ethnic backgrounds [31]. Globally, there has been an increase in natural product research in the last two decades [30, 32].

This has been partly in response to the increasing antimicrobial resistance, emergence of new diseases, and decrease in the chemical diversity of natural product libraries [30, 32–36]. It has also been so in an effort to continue the search for more effective, safer, and cheaper therapeutic agents for existing diseases, to substitute expensive prescription drugs [37–40]. *Erythrina abyssinica* is among those revered plants [40, 41] that has been widely researched [3]. However, the information on it is highly fragmented in different journals, books, university libraries, and other publication media platforms. This review was therefore undertaken to compile a comprehensive document that describes the ethnobotany, phytochemistry, and ethnopharmacology of *E. abyssinica* so as to generate integrated and sufficient scientific evidence to support its medicinal use. The study further emphasizes the importance of conserving this medicinal plant amidst the growing destruction of natural resources for settlement, industrialization, construction, and energy production [27, 42–47].2. Methods2.1. Protocol Registration and ReportingThe protocol used in this systematic review was registered with the International Prospective Register of Systematic Reviews (PROSPERO) and can be accessed from their website ( with the registration number CRD42020187081. The Preferred Reporting Items for the Systematic Reviews and Meta-Analyses (PRISMA) guidelines [48] have been used in the reporting of this study (Figure 1).2.2. Literature SearchElectronic data on ethnobotany, phytochemistry, efficacy, and toxicity of *E. abyssinica* were retrieved from electronic databases such as Scopus, Web of Science Core Collection, PubMed, American Chemical Society, ScienceDirect, Scientific Electronic Library Online (SciELO), Google Scholar, and NAPRALERT (a comprehensive natural products database with ethnomedicinal and pharmacological information of extracts and isolated compounds). Sets of keywords such as “ethnobotany,” “traditional medicine,” “ethnobotany,” “alternative medicine,” “ethnopharmacology,” “phytochemistry,” “extraction,” “isolation,” “efficacy,” “safety,” “toxicity,” “phytochemicals,” “structural elucidation,” and clinical study were combined with “*Erythrina abyssinica*.” The retrieved articles were downloaded and stored in EndNote X9 (Thomson Reuters, San Francisco, CA, USA) by three independent authors (SBO, TO, and YG). Duplicate articles were then removed from the file. Further, manual search from the reference lists of screened eligible articles and deposited electronic copies of dissertations and theses in University online libraries were done. The authors continuously received notifications of any new “similar reports” meeting the search criteria from ScienceDirect, Scopus, and Google Scholar.2.3. ScreeningRetrieved articles were first screened based on the titles and abstracts for relevance to the study by three independent reviewers (MPO, SM, and YG). Articles that reported on other species of *Erythrina* but not *abyssinica* and also *abyssinica* but not of genus *Erythrina* were also excluded. For example, we excluded articles on *Entada abyssinica*, *Erythrina variageta*, *Erythrina suberosa*, *Albuca abyssinica*, *Dregea abyssinica*, *Harrisonia abyssinica*, and *Wahlenbergia abyssinica* although they appeared in the search results. During the screening, every time a disagreement occurred it was resolved through a discussion between the reviewers and/or by the principal investigator (SBO). The eligible articles were then assessed further for inclusion in the study using the inclusion/exclusion criteria.2.4. Inclusion and Exclusion CriteriaFull-text articles that at least reported on ethnobotany, ethnopharmacology, and phytochemistry of *Erythrina abyssinica* written in English or French but translated to English and published in peer-reviewed journals, reports, books, theses, and dissertations dated until January 2021 were considered. All publishing years were included without any geographical restrictions. Articles that reported data not relevant to the study, reviews, and not written in English or French were excluded from the study.2.5. Data ExtractionA data extraction tool was designed in Microsoft Excel (Microsoft Corporation, USA) to capture data on different aspects of *E. abyssinica*. Three reviewers independently extracted relevant data from the included articles regarding the ethnobotany, ethnopharmacology, and phytochemistry of *E. abyssinica*. For ethnobotanical data, the diseases or ailments managed, parts used, and mode of preparation and administration were captured. For phytochemistry, the name of isolated pure compounds, chemical class, extraction solvent, and their efficacy and toxicity were captured. For ethnopharmacology, extraction solvent used, bioassay/model used, results of efficacy, and toxicity of extracts were captured. The collected data were checked for completeness and processed independently by two reviewers.2.6. Data Analysis and SynthesisDescriptive statistical methods were used to analyse the collected data. Results were expressed as percentages and frequencies and subsequently presented as tables and charts. The analyses were performed using SPSS statistical software (version 20, IBM Inc.).3. Results and Discussion3.1. Literature and PublicationsA total of 201 reports were retrieved out of which 132 met the inclusion criteria and were reviewed. Of these, 78 articles reported only on the ethnobotany, 27 articles on pharmacology only, 15 articles on both pharmacology and phytochemistry, 5 articles on phytochemistry only, and 3 articles on both ethnobotany and pharmacology while 4 articles on ethnobotany, pharmacology, and phytochemistry. Most of the articles (56.8%) were published in the 2010–2019 decade, indicating a lot of research is being done as compared to the preceding decades (Figure 2). This could be due to the (1) growing need for more effective and less toxic medicinal products of plant origin, (2) emerging antimicrobial resistance that has rendered most chemotherapeutic agents less effective, (3) new disease outbreaks like Ebola, and (4) increase in noncommunicable diseases such as cancers, hypertension, diabetes mellitus, and sexual dysfunction that require readily available, affordable, effective, and safe therapies.3.2. Taxonomy, Morphology, Distribution, and Propagation*Erythrina abyssinica* belongs to the kingdom Plantae, phylum Spermatophyta, subphylum Magnoliophyta (flowering plants), class Magnoliopsida (dicotyledons), order Fabales, family Fabaceae (legumes), subfamily Papilionioideae, genus *Erythrina* (L.), and species *abyssinica* (Lam ex. DC.). The frequently encountered synonyms of this species include *E. kassneri* Baker f., *Coralodendron suberifera* (Welw. ex Baker) Kuntze, *E. bequaerti* De Wild., *E. tomentosa* R. Br., *Chirocalyx abyssinicus* (Lam.) Hochst., and *C. tomentosus* Hochst.







statement. PLoS Medicine, vol. 6, Article ID 1000097, 2009.View at: Publisher Site | Google ScholarA. Yenesew, M. Indulu, S. Derese et al., "Anti-plasmodial flavonoids from the stem bark of Erythrina abyssinica," *Phytochemistry*, vol. 65, no. 22, pp. 3029-3032, 2004.View at: Publisher Site | Google ScholarJ. Nasimolo, S. G. Kiama, P. K. Gathumbi, A. N. Makanya, and J. M. Kagira, "Erythrina abyssinica prevents meningoencephalitis in chronic Trypanosoma brucei brucei mouse model," *Metabolic Brain Disease*, vol. 29, no. 2, pp. 509-519, 2014.View at: Publisher Site | Google ScholarN. Laurent and S. A. O. Chamshama, "Studies on the germination oferythrina abyssinicaandjuniperus procera," *International Tree Crops Journal*, vol. 4, no. 4, pp. 291-298, 1987.View at: Publisher Site | Google ScholarR. Aerts, "Erythrina abyssinica Lam. ex DC.," in *Prota 7(1): Timbers/Bois D'oeuvre 1*. [CDROM]. PROTA, D. Louppe, A. A. Oteng-Amoako, and M. Brink, Eds., Wageningen, The Netherlands, 2008.View at: Google ScholarN. Dharani, *Field Guide to Common Trees & Shrubs of East Africa*, Random Struik Publishers, Cape Town, South Africa, 3rd edition, 2019.N. Dharani and A. Yenesew, *Medicinal Plants of East Africa*, Drongo Editing & Publishing, Nairobi, Kenya, 2010.G. Wetang'ula, J. A. Raini, and I. Munyeki, "Vegetation types and diversity in Menengai Caldera Geothermal Project Area, Kenya," in *Proceedings of the Presentation at Short Course X on Exploration for Geothermal Resources*, Organized by UNU-GTP, GDC and KenGen, at Lake Bogoria and Lake Naivasha, Kenya, Nairobi, Kenya, November-December 2015.View at: Google ScholarA. C. Hamilton, *A Field Guide to Uganda Forest Trees*, Makerere University Printer, Kampala, Uganda, 1981.G. N. Njoroge and R. W. Bussman, "Diversity and utilization of antimalarial ethnophytotherapeutic remedies among the Kikuyu (Central Kenya)," *Journal of Ethnobiology and Ethnomedicine*, vol. 2, no. 8, p. 7, 2006.View at: Publisher Site | Google ScholarM. M. D. Mohammed, N. A. Ibrahim, N. E. Awad et al., "Anti-HIV-1 and cytotoxicity of the alkaloids of Erythrina abyssinica Lam. growing in Sudan," *Natural Product Research*, vol. 26, no. 17, pp. 1565-1575, 2012.View at: Publisher Site | Google ScholarF. Manyarara, J. Chifamba, and F. Tarugarrira, "Antifungal activity of ziziph mucronata and Erythrina abyssinica bark crude extracts on Cryptococcus neoformans and Candida albicans species," *British Journal of Pharmaceutical Research*, vol. 10, no. 3, pp. 1-11, 2016.View at: Publisher Site | Google ScholarF. M. Rodegem, "Dictionnaire Rundi-Français. Annales du Musée royal de l'Afrique centrale, Tervuren (Belgique), Série in -8", *Sc. humaines*, 69, [Rundi-French dictionary, Royal Museum for Central Africa edition, Series: royal Museum for Central Africa, Tervuren, Belgium. *Annals. Series in- 8. Humanities*, No. 691." 1970.View at: Google ScholarG. Mossia, "Evaluation of stem bark of erythrina abyssinica for antimicrobial and termiticidal principles," *Jimma University, Jimma, Ethiopia*, 2017. M.Sc. thesis.View at: Google ScholarJ. Ndamba, N. Nyazema, N. Makaza, C. Anderson, and K. C. Kaondera, "Traditional herbal remedies used for the treatment of urinary schistosomiasis in Zimbabwe," *Journal of Ethnopharmacology*, vol. 42, no. 2, pp. 125-132.View at: Google ScholarK. Majid, B.-I. Gilbert, and L. S. Jeremiah, "Role of Acacia and Erythrina trees in forest regeneration by vertebrate seed dispersers in Kibale National Park, Uganda," *African Journal of Ecology*, vol. 49, no. 2, pp. 189-198, 2011.View at: Publisher Site | Google ScholarG. Nyberg and P. Höglberg, "Effects of young agroforestry trees on soils in on-farm situations in western Kenya," *Agroforestry Systems*, vol. 32, no. 1, pp. 45-52, 1995.View at: Publisher Site | Google ScholarA. Abay, "Nitrogen release dynamics of Erythrina abyssinica and Erythrina brucei litters as influenced by their biochemical composition," *African Journal of Plant Science*, vol. 12, no. 12, pp. 331-340, 2018.View at: Google ScholarV. Ingram, R. Kirui, J. Hitimana et al., "Trees and plants for bees and beekeepers in the Upper Mara Basin," in *Guide to Useful Melliferous Trees and Crops for Beekeepers*, Wageningen University & Research, Wageningen, Netherlands, 2017.View at: Google ScholarE. K. Kakudidi, "Cultural and social uses of plants from and around kibale national park, Western Uganda," *African Journal of Ecology*, vol. 42, no. 18, pp. 114-118, 2004.View at: Publisher Site | Google ScholarD. N. Ndinteh, "Antidiabetic potential of Erythrina abyssinica via protein tyrosine phosphate 1B inhibitory activity," in *Emerging Trends in Chemical Sciences*, P. Ramasami, M. Gupta Bhowan, S. Jhaumeer Lallouo, and H. Li Kam Wah, Eds., pp. 377-389, Springer, Cham, Switzerland, 2016.View at: Google ScholarA. Larbi, D. Thomas, and J. Hanson, "Forage potential ofErythrina abyssinica: intake, digestibility and growth rates for stall-fed sheep and goats in southern Ethiopia," *Agroforestry Systems*, vol. 21, no. 3, pp. 263-270, 1993.View at: Publisher Site | Google ScholarA. Larbi, O. I. Kurdi, A. N. Said, and J. Hanson, "Classification of Erythrina provenances by rumen degradation characteristics of dry matter and nitrogen," *Agroforestry Systems*, vol. 33, no. 2, pp. 153-163, 1996.View at: Publisher Site | Google ScholarF. Schultz, G. Anywar, B. Waack, C. L. Quave, and L.-A. Garbe, "Ethnobotanical study of selected medicinal plants traditionally used in the rural Greater Mpigi region of Uganda," *Journal of Ethnopharmacology*, vol. 256, Article ID 112742, 2020.View at: Google ScholarD. Lacroix, S. Prado, D. Kamoga et al., "Antiplasmodial and cytotoxic activities of medicinal plants traditionally used in the village of Kiohima, Uganda," *Journal of Ethnopharmacology*, vol. 133, no. 2, pp. 850-855, 2011.View at: Publisher Site | Google ScholarJ. Namukobe, J. M. Kasenene, B. T. Kiremire et al., "Traditional plants used for medicinal purposes by local communities around the Northern sector of Kibale National Park, Uganda," *Journal of Ethnopharmacology*, vol. 136, no. 1, pp. 236-245, 2011.View at: Publisher Site | Google ScholarN. Mukungu, K. Abuga, F. Okalebo, R. Ingwela, and J. Mwangi, "Medicinal plants used for management of malaria among the Luhya community of Kakamega East sub-County, Kenya," *Journal of Ethnopharmacology*, vol. 194, pp. 98-107, 2016.View at: Publisher Site | Google ScholarP. G. Kareru, G. M. Kenji, A. N. Gachanja, J. M. Keriko, and G. Mungai, "Traditional medicines among the Embu and Mbeere people of Kenya," *African Journal of Traditional Complementary and Alternative Medicine*, vol. 4, pp. 75-86, 2007.View at: Publisher Site | Google ScholarP. Nalumansi, M. Kamatenesi-Mugisha, and A. Godwin, "Medicinal plants used in paediatric health care in namungaiwe sub county, iganga district, Uganda," *Nova Journal of Medical and Biological Sciences*, vol. 03, no. 02, pp. 1-10, 2014.View at: Publisher Site | Google ScholarF. Kasali, A. O. Mahano, D. S. Nyakabwa et al., "Ethnopharmacological survey of medicinal plants used against malaria in bukavu city (D.R. Congo)," *European Journal of Medicinal Plants*, vol. 4, no. 1, pp. 29-44, 2014.View at: Publisher Site | Google ScholarJ. Nankaya, N. Gichuki, C. Lukhoba, and H. Baisler, "Medicinal plants of the Maasai of Kenya: a review," *Plants*, vol. 9, no. 1, p. 44, 2019.View at: Publisher Site | Google ScholarO. Amuka, A. K. Machocho, P. K. Mbugua, and P. O. Okemo, "Ethnobotanical survey of selected medicinal plants used by the ogiek communities in Kenya against microbial infections," *Ethnobotany Research and Applications*, vol. 12, pp. 627-641, 2014.View at: Publisher Site | Google ScholarS. V. Okello, R. O. Nyunja, G. W. Netondo, and J. C. Onyango, "Ethnobotanical study of medicinal plants used by Saboots of Mt. Elgon Kenya," *African Journal of Traditional, Complementary and Alternative Medicine*, vol. 7, no. 1, pp. 1-10, 2010.View at: Publisher Site | Google ScholarM. Ichimaru, M. Moriyasu, Y. Nishiyama et al., "Structural elucidation of new flavanones isolated fromErythrina abyssinica," *Journal of Natural Products*, vol. 59, no. 12, pp. 1113-1116, 1996.View at: Publisher Site | Google ScholarD. Njamen, J. T. Mbafor, Z. T. Fomum et al., "Anti-inflammatory activities of two flavanones, sigmoidin A and sigmoidin B, from Erythrina sigmoidea," *Planta Medica*, vol. 70, no. 2, pp. 104-107, 2004.View at: Google ScholarE. Odongo, N. Mungai, P. Mutai, E. Karumi, J. Mwangi, and J. Omale, "Ethnobotanical survey of medicinal plants used in Kakamega County, Western Kenya," *Applied Medical Research*, vol. 4, no. 1, pp. 22-40, 2018.View at: Publisher Site | Google ScholarN. Shirracko, B. O. Owuor, M. M. Gakuubi, and W. Wanzala, "A survey of ethnobotany of the AbaWanga people in Kakamega county, Western province of Kenya," *Indian Journal of Traditional Knowledge*, vol. 15, pp. 93-102, 2016.View at: Google ScholarW. Kipkore, B. Wanjohi, H. Rono, and G. Kigen, "A study of the medicinal plants used by the Marakwet community in Kenya," *Journal of Ethnobiology and Ethnomedicine*, vol. 10, no. 1, p. 24, 2014.View at: Publisher Site | Google ScholarD. Musunguzi, A. Tumushabe, K. Sekabira, T. A. Basamba, and D. Byarugaba, "Medicinal plants use in and around Kalinzu central forest reserve, Western Uganda," *Journal of Medicinal Plants Studies*, vol. 5, no. 6, pp. 44-49, 2017.View at: Google ScholarA. Maroyi, "An ethnobotanical survey of medicinal plants used by the people in Nhema communal area, Zimbabwe," *Journal of Ethnopharmacology*, vol. 136, no. 2, pp. 347-354, 2011.View at: Publisher Site | Google ScholarD. Ollila, R. Bukenya-Ziraba, and D. Kamoga, "Bio-prospective studies on medicinal plants used in the treatment of poultry diseases in Uganda," *Research Journal of Pharmacology*, vol. 1, pp. 56-60, 2007.View at: Google ScholarJ. Cortez, E. Rosário, J. E. Pires et al., "Antimicrobial storage and antibiotic knowledge in the community: a cross-sectional pilot study in north-western Angola," *International Journal of Infectious Diseases*, vol. 60, pp. 83-87, 2017.View at: Publisher Site | Google ScholarD. K. Kariuki, J. O. Miaron, J. Mugwera, and L. O. Kerubo, "Antibacterial activity of five medicinal plant extracts used by the Maasai people of Kenya," *BEST: International Journal of Humanities, Arts, Medicine and Sciences*, vol. 2, no. 7, pp. 1-6, 2014.View at: Google ScholarK. N. Kimathi, P. A. Ogutu, C. Mutai, and P. Jeruto, "Ethnobotanical study of selected medicinal plants used against bacterial infections in Nandi county, Kenya," *Journal of Medicinal Plants Studies*, vol. 7, pp. 103-108, 2019.View at: Google ScholarW. Musila, D. Kisangau, and J. Muema, "Conservation status and use of medicinal plants by traditional medical practitioners in Machakos District, Kenya," in *Proceedings of the Indigenous Knowledge Conference*, pp. 27-29, Eastern Kenya University, Kitui, Kenya, 2004.View at: Google ScholarA. Marumse, S. Khoza, G. Matope et al., "Wound healing properties of selected plants used in ethnoveterinary medicine," *Frontiers in Pharmacology*, vol. 8, pp. 1-10, 2017.View at: Google ScholarM. Gelfand, S. Mavi, R. B. Drummond, and B. Ndemera, *The Traditional Medical Practitioner in Zimbabwe: His Principles of Practice and Pharmacopoeia* (Zambezia), vol. 17, Mamba Press, Gweru, Zimbabwe, 1985.L. Bunalema, S. Obakiro, J. R. S. Tabuti, and P. Waako, "Knowledge on plants used traditionally in the treatment of tuberculosis in Uganda," *Journal of Ethnopharmacology*, vol. 151, no. 2, pp. 999-1004, 2014.View at: Publisher Site | Google ScholarJ. Orodroh, C. Kirimuhyuzya, J. N. Otieno, J. J. Magadula, and O. Okemo, "Local management of tuberculosis by traditional medicine practitioners in lake Victoria region," *The Open Complementary Medicine Journal*, vol. 3, no. 1, pp. 1-9, 2011.View at: Publisher Site | Google ScholarD. P. Kisangau, H. V. M. Lyaruu, K. M. Hosea, and C. C. Joseph, "Use of traditional medicines in the management of HIV/AIDS opportunistic infections in Tanzania: a case in the Bukoba rural district," *Journal of Ethnobiology and Ethnomedicine*, vol. 3, pp. 1-8, 2007.View at: Publisher Site | Google ScholarJ. R. S. Tabuti, C. B. Kukunda, and P. J. Waako, "Medicinal plants used by traditional medicine practitioners in the treatment of tuberculosis and related ailments in Uganda," *Journal of Ethnopharmacology*, vol. 127, no. 1, pp. 130-136, 2010.View at: Publisher Site | Google ScholarC. W. Wagate, J. M. Mbaria, D. W. Gakuya et al., "Screening of some Kenyan medicinal plants for antibacterial activity," *Phytotherapy Research*, vol. 24, no. 1, pp. 150-153, 2009.View at: Publisher Site | Google ScholarS. Asimwe, M. Kamatenesi-Mugisha, A. Namutebi, A.-K. Borg-Karlsson, and P. Musiimenta, "Ethnobotanical study of nutri-medicinal plants used for the management of HIV/AIDS opportunistic ailments among the local communities of Western Uganda," *Journal of Ethnopharmacology*, vol. 150, no. 2, pp. 639-648, 2013.View at: Publisher Site | Google ScholarM. Lamorde, J. R. S. Tabuti, C. Obus et al., "Medicinal plants used by traditional medicine practitioners for the treatment of HIV/AIDS and related conditions in Uganda," *Journal of Ethnopharmacology*, vol. 130, no. 1, pp. 43-53, 2010.View at: Publisher Site | Google ScholarM. Shehu, I. Bello, N. Abdulkadir et al., "Utilization of medicinal plants used in the management of HIV/AIDS opportunistic infections in Njiru sub-county, Buikwe district, Uganda," *MOJ Bioequivalence Bioavailability*, vol. 5, no. 1, pp. 66-72, 2018.View at: Publisher Site | Google ScholarM. Kamatenesi-Mugisha and H. Oryem-Origa, "Medicinal plants used to induce labour during childbirth in Western Uganda," *Journal of Ethnopharmacology*, vol. 109, no. 1, pp. 1-9, 2007.View at: Publisher Site | Google ScholarJ. K. Muthee, D. W. Gakuya, J. M. Mbaria, P. G. Kareru, C. M. Mulei, and F. K. Njunge, "Ethnobotanical study of antelmintic and other medicinal plants traditionally used in Loitokot district of Kenya," *Journal of Ethnopharmacology*, vol. 135, no. 1, pp. 15-21, 2011.View at: Publisher Site | Google ScholarG. Kigen, A. Maritim, F. Some et al., "Ethnopharmacological survey of the medicinal plants used in Tindiret, Nandi county, Kenya," *African Journal of Traditional, Complementary and Alternative Medicines*, vol. 13, no. 3, pp. 156-168, 2016.View at: Publisher Site | Google ScholarS. M. Maregesi, O. D. Ngassapa, L. Pieters, and A. J. Vlietinck, "Ethnopharmacological survey of the Bunda district, Tanzania: plants used to treat infectious diseases," *Journal of Ethnopharmacology*, vol. 113, no. 3, pp. 457-470, 2007.View at: Publisher Site | Google ScholarS. Augustino and P. R. Giliah, "Medicinal plants in urban districts of Tanzania: plants, gender roles and sustainable use," *International Forestry Review*, vol. 7, no. 1, pp. 44-58, 2005.View at: Publisher Site | Google ScholarS. Augustino, J. B. Hall, F. B. S. Makonda, and R. C. Ishengoma, "Medicinal resources of the miombo woodlands of urumua, Tanzania: plants and its uses," *Journal of Medicinal Plants Research*, vol. 5, no. 27, pp. 6352-6372, 2011.View at: Google ScholarE. O. Omwenga, A. Hensel, A. Shitandi, and F. M. Goycoolea, "Ethnobotanical survey of traditionally used medicinal plants for infections of skin, gastrointestinal tract, urinary tract and the oral cavity in Borabu sub-county, Nyamira county, Kenya," *Journal of Ethnopharmacology*, vol. 176, pp. 508-514, 2015.View at: Publisher Site | Google ScholarF. A. Hamill, S. Apio, N. K. Mubiru et al., "Traditional herbal drugs of southern Uganda," *Journal of Ethnopharmacology*, vol. 87, no. 1, pp. 15-19, 2003.View at: Publisher Site | Google ScholarA. J. Vlietinck, L. Van Hoof, J. Lasure, D. V. Berghé, P. C. Rwangabo, and J. Mvukiyumwami, "Screening of hundred Rwandese medicinal plants for antimicrobial and antiviral properties," *Journal of Ethnopharmacology*, vol. 46, no. 1, pp. 31-47, 1995.View at: Publisher Site | Google ScholarN. M. Piero, N. J. Murugi, M. C. Kibiti et al., "Hypoglycemic activity of some Kenyan plants traditionally used to manage diabetes mellitus in eastern province," *Journal of Diabetes and Metabolism*, vol. 2, p. 155, 2015.View at: Google ScholarB. Amuri, M. Maseho, L. Simbi, P. Okusa, P. Duez, and K. Byanga, "Hypoglycemic and antihyperglycemic activities of nine medicinal herbs used as antidiabetic in the region of lubumbashi (DR Congo)," *Phytotherapy Research*, vol. 31, no. 7, pp. 1029-1033, 2017.View at: Publisher Site | Google ScholarM. E. Parker, S. Chahot, B. J. Ward, and T. Johns, "Traditional dietary additives of the Maasai are antiviral against the measles virus," *Journal of Ethnopharmacology*, vol. 114, no. 2, pp. 146-152, 2007.View at: Publisher Site | Google ScholarG. N. Njoroge and J. W. Kibunga, "Herbal medicine acceptance, sources and utilization for diarrhoea management in a cosmopolitan urban area (Thika, Kenya)," *African Journal of Ecology*, vol. 45, no. s1, pp. 65-70, 2007.View at: Publisher Site | Google ScholarS. C. Chhabra, F. C. Uiso, and E. N. Mshui, "Phytochemical screening of tanzanian medicinal plants. I," *Journal of Ethnopharmacology*, vol. 11, no. 2, pp. 157-179, 1984.View at: Publisher Site | Google ScholarP. E. Glover, J. Stewart, and M. D. Gwynne, "Masai and kipsigis notes on East african plants," *East African Agricultural and Forestry Journal*, vol. 32, no. 2, pp. 200-207, 1966.View at: Publisher Site | Google ScholarM. Gakuubi and W. Wanzala, "A survey of plants and plant products traditionally used in livestock health management in Buuri district, Meru County, Kenya," *Journal of Ethnobiology and Ethnomedicine*, vol. 8, no. 1, p. 39, 2012.View at: Publisher Site | Google ScholarP. Wasswa and D. Ollila, "The in-vitro ascariid activity of selected indigenous medicinal plants used in ethno veterinary practices in Uganda," *African Journal of Traditional, Complementary and Alternative Medicine*, vol. 3, pp. 457-470, 2007.View at: Publisher Site | Google ScholarC. Lagu and F. I. B. Kavanja, "In vitro antimicrobial activity of crude extracts of Erythrina abyssinica and capsicum annum in poultry diseases control in the South western agro-ecological zone of Uganda. A bird's-eye view," *Veterinary Medicine*, pp. 597-614, 2012.View at: Google ScholarC. Lagu and F. I. B. Kavanja, "The in Vitro Anthelmintic Efficacy of Erythrina Abyssinica Extracts on Ascaridia Gallii, Intech Open, London, UK, Rufford Organization, Nairobi, Kenya, 2013.R. Rajakrishnan, R. Lekshmi, P. B. Beni et al., "Phytochemical evaluation of roots of Plumbago zeylanica L. and assessment of its potential as a nephroprotective agent," *Saudi Journal of Biological Sciences*, vol. 24, no. 4, pp. 760-766, 2017.View at: Publisher Site | Google ScholarL. Bunalema, C. Kirimuhyuzya, J. R. S. Tabuti et al., "The efficacy of the crude root bark extracts of Erythrina abyssinica on rifampicin resistant mycobacterium tuberculosis," *African Health Sciences*, vol. 11, pp. 587-593, 2011.View at: Google ScholarT. Munodawafa, S. Moyo, B. Chipurura, and L. Chagonda, "Brine shrimp lethality bioassay of some selected Zimbabwean traditional medicinal plants," *International Journal of Phytopharmacy*, vol. 7, pp. 229-232, 2014.View at: Google ScholarM. T. Musyoka, W. D. Nyamai, M. W. Atika et al., "In vivo antianemic effect and safety of aqueous extracts of Erythrina abyssinica and zanthoxylum usambarenis in mice models," *Journal of Hematology and Thromboembolic Diseases*, vol. 4, pp. 1-10, 2016.View at: Google ScholarA. A. Koparde, "Phyto active compounds from herbal plant extracts: its extraction, isolation and characterization," *World Journal of Pharmaceutical Research*, vol. 6, no. 8, pp. 1186-1205, 2017.View at: Publisher Site | Google ScholarA. Altemimi, N. Lakhssassi, A. Baharlouei et al., "Phytochemicals: extraction, isolation, and identification of bioactive compounds from plant extracts," *Plants*, vol. 6, no. 4, 2017.View at: Publisher Site | Google ScholarM. E. Amer, M. Shamma, and A. J. Freyer, "The tetracyclic Erythrina alkaloids," *Journal of Natural Products*, vol. 54, no. 2, pp. 363-363, 1991.View at: Publisher Site | Google ScholarK. Folkers and F. Koniuszy, "Erythrina alkaloids. Isolation and characterization of erysodine, erysopine, erysocene and erysovine," *Journal of American Pharmacist Association*, vol. 62, no. 436, pp. 1677-1683, 1940.View at: Publisher Site | Google ScholarA. Yenesew, H. Twinomuhwezi, B. T. Kiremire et al., "8-Methoxyneorautenol and radical scavenging flavonoids from Erythrina abyssinica," *Bulletin of Chemical Society of Ethiopia*, vol. 23, no. 2, pp. 205-210, 2009.View at: Publisher Site | Google ScholarF. Machumi, G. Bojase-Moleta, R. Mapitse, I. Masesane, and R. R. T. Majinda, "Radical scavenging-flavonoids from Erythrina abyssinica," *Natural Product Communication*, vol. 1, pp. 287-292, 2006.View at: Publisher Site | Google ScholarL. Cui, H. Lee, D. Ndinteh et al., "New prenylated flavanones fromErythrina abyssinicawith protein tyrosine phosphatase 1B (PTP1B) inhibitory activity," *Planta Medica*, vol. 76, no. 07, pp. 713-718, 2010.View at: Publisher Site | Google ScholarV. S. Kamat, F. Y. Chuo, I. Kubo, and K. Nakanishi, "Antimicrobial agents from an East African medicinal plant Erythrina abyssinica," *Heterocycles*, vol. 15, no. 2, p. 1163, 1981.View at: Google ScholarA. K. Waffo, G. A. Azebaze, A. E. Nkengfack et al., "Indicanines B and C, two isoflavonoid derivatives from the root bark of Erythrina indica," *Phytochemistry*, vol. 53, no. 8, pp. 981-985, 2000.View at: Publisher Site | Google ScholarL. Cui, P. T. Thuong, H. S. Lee et al., "Flavanones from the stem bark of Erythrina abyssinica," *Bioorganic & Medicinal Chemistry*, vol. 16, no. 24, pp. 10356-10362, 2008.View at: Publisher Site | Google ScholarM. Moriyasu, M. Ichimaru, Y. Nishiyama et al., "Minor flavanones fromErythrinaabyssinica," *Journal of Natural Products*, vol. 61, no. 2, pp. 185-188, 1998.View at: Publisher Site | Google ScholarL. Cui, D. T. Ndinteh, M. Na et al., "Isoprenylated flavonoids from the stem bark ofErythrinaabyssinica#," *Journal of Natural Products*, vol. 70, no. 6, pp. 1039-1042, 2007.View at: Publisher Site | Google ScholarM. Taniguchi and I. Kubo, "Ethnobotanical drug discovery based on medicine men's trials in the african savanna: screening of East african plants for antimicrobial activity II," *Journal of Natural Products*, vol. 56, no. 9, pp. 1539-1546, 1993.View at: Publisher Site | Google ScholarP. H. Nguyen, T. T. Dao, J. Kim et al., "New 5-deoxyflavonoids and their inhibitory effects on protein tyrosine phosphatase 1B (PTP1B) activity," *Bioorganic & Medicinal Chemistry*, vol. 19, no. 11, pp. 3378-3383, 2011.View at: Publisher Site | Google ScholarJ. S. Kebenei, P. K. Ndalut, and A. O. Sabah, "Synergism of artemisinin with abyssinone-V from Erythrina abyssinica (Lam. ex) against Plasmodium falciparum parasites: a potential anti-malarial combination therapy," *Journal of Medicinal Plants Research*, vol. 5, no. 13, pp. 55-60, 2011.View at: Google ScholarP.-H. Nguyen, T.-N.-A. Nguyen, T.-T. Dao et al., "AMP-activated protein kinase (AMPK) activation by benzofuran and coumestans isolated fromErythrina abyssinica," *Journal of Natural Products*, vol. 73, pp. 598-602, 2010.View at: Publisher Site | Google ScholarA. A. Ochung, "Phytochemical investigations of Lonchocarpus eriochaety (Harms). Alysicarpus ovalifolius (Schumach) and Erythrina abyssinica (DC) for antiplasmodial, larvicidal, mosquitocidal and antimicrobial activities," *Maseno University, Kisumu, Kenya*, 2016. Ph.D. thesis.View at: Publisher Site | Google ScholarS. Habtemariam, "The anti-obesity potential of sigmoidin A," *Pharmaceutical Biology*, vol. 50, no. 12, pp. 1519-1522, 2012.View at: Google ScholarA. J. Pérez, E. M. Hassan, L. Pecio et al., "Triterpenoid saponins and C-glycosyl flavones from stem bark of Erythrina abyssinica Lam and their cytotoxic effects," *Phytochemistry Letters*, vol. 13, pp. 59-67, 2015.View at: Publisher Site | Google ScholarH. Kamusso, A. T. Pedersen, Ø. M. Andersen, and B. Kiremire, "Kaempferol 3-O-(2-O-β-D-Glucopyranosyl)-6-O-a-L-Rhamnopyranosyl-β-D-Glucopyranoside) from the african plant Erythrina abyssinica," *International Journal of Pharmacognosy*, vol. 34, no. 5, pp. 370-373, 1996.View at: Publisher Site | Google ScholarW. M. Kone, K.-N. E. Solange, and M. Dosso, "Assessing sub-saharian Erythrina for efficacy: traditional uses, biological activities and phytochemistry," *Pakistan Journal of Biological Sciences*, vol. 14, no. 10, pp. 560-571, 2011.View at: Publisher Site | Google ScholarM. Wink, "Evolution of secondary metabolites in legumes (Fabaceae)," *South African Journal of Botany*, vol. 89, pp. 164-175, 2013.View at: Publisher Site | Google ScholarJ. C. M. Barreira, T. Visnevski-Necrasov, G. Pereira, E. Nunes, and M. B. P. Oliveira, "Phytochemical profiling of underexploited Fabaceae species: insights on the ontogenic and phylogenetic effects over isoflavone levels," *Food Research International*, vol. 100, pp. 517-523, 2017.View at: Publisher Site | Google ScholarD. Hill, *The Erythrina Alkaloids*, Princeton University, Princeton, NJ, USA, 1957.C. Zhuang, W. Zhang, C. Sheng, W. Zhang, C. Xing, and Z. Miao, "Chalcone: a privileged structure in medicinal chemistry," *Critical Reviews*, vol. 117, no. 12, pp. 7762-7810, 2017.View at: Publisher Site | Google ScholarC. Stevenson and N. Aslam, *Studies in Natural Product Chemistry*, vol. 41, Elsevier, Amsterdam, Netherlands, 1st edition, 2006.L. Zhang, J. Zhang, Z. Ye, D. M. Townsend, and K. D. Tew, "Pharmacology of ME-344, a novel cytotoxic isoflavone," *Advances in Cancer Research*, vol. 142, pp. 187-207, 2019.View at: Publisher Site | Google ScholarA. Zwitter, "Flavanones proanthocyanidin: from phenolic compounds to proanthocyanidins extraction techniques and applications: food and beverage," in *Chemistry, Molecular Sciences and Chemical Engineering*, 2014.View at: Google ScholarT. T. Dao, P. H. Nguyen, P. T. Thuong et al., "Pterocarpan with inhibitory effects on protein tyrosine phosphatase 1B from Erythrina lysistemom Hutch," *Phytochemistry*, vol. 70, no. 17-18, pp. 2053-2057, 2009.View at: Publisher Site | Google ScholarD. Awouafack, P. Tane, V. Kuete et al., "Sesquiterpenes from the medicinal plants of Africa," *Medicinal Plants Research. African Pharmacology and Chemistry*, 2013.View at: Publisher Site | Google ScholarD. R. Kamadayaapa, M. M. Gondwe, M. Shauli, C. Sewani-Rusike, and B. Nkeh-Chungag, "Evaluation of antidiabetic and antioxidant effects of ethanolic leaf extract of Erythrina Abyssinica Lam. Ex DC," *Asian Journal of Pharmacy and Clinical Research*, vol. 11, no. 8, pp. 300-306, 2018.View at: Publisher Site | Google ScholarP. H. Nguyen, T. V. T. Le, P. T. Thuong et al., "Cytotoxic and PTP1B inhibitory activities from Erythrina abyssinica," *Bioorganic & Medicinal Chemistry Letters*, vol. 19, no. 23, pp. 6745-6749, 2009.View at: Publisher Site | Google ScholarB. N. Nkeh-chungag, S. Tiya, J. T. Mbafor, E. J. Ndebia, and J. E. Iputo, ""Effects of the methanol extract of Erythrina abyssinica on hot flashes in ovariectomized rats," *African Journal of Biotechnology*, vol. 12, no. 6, pp. 598-601, 2013.View at: Google ScholarF. K. Macharia, P. W. Mwangi, A. Yenesew et al., "Hepatoprotective effects of erythrina abyssinica lam ex dc against non alcoholic fatty liver disease in sprague dawley rats," *BioRxiv*, pp. 577-607, 2019.View at: Publisher Site | Google ScholarA. Yenesew, H. M. Akala, H. Twinomuhwezi et al., "The antiplasmodial and radical scavenging activities of flavonoids of Erythrina burttii," *Acta Tropica*, vol. 123, no. 2, pp. 123-127, 2012.View at: Publisher Site | Google ScholarD. W. Onyango and J. O. Midiwo, "In vivo evaluation of anti-malarial activity of stem and root extracts of Erythrina abyssinica," *European Journal of Medicinal Plants*, vol. 27, no. 4, pp. 1-5, 2019.View at: Publisher Site | Google ScholarR. M. Marita, C. K. P. O. Ogot, N. O. Ogue, and P. O. Okemo, "Antitubercular and phytochemical investigation of methanol extracts of medicinal plants used by the Samburu community in Kenya," *Tropical Journal of Pharmacy Research*, vol. 9, pp. 379-385, 2010.View at: Publisher Site | Google ScholarJ. Aber, P. E. Ogwang, N. Anyama, and C. O. Ajayi, "In vitro anti-tuberculous study on the combination of extracts of stem-bark of Erythrina abyssinica Lam. ex DC and conventional drugs," *Journal of Pharmacognosy and Phytochemistry*, vol. 8, no. 3, pp. 2708-2711, 2019.View at: Google ScholarK. Korir, C. Bii, C. Kiyukia, and C. Mutai, "Antimicrobial activities of Clusia abyssinica and Erythrina abyssinica Lam. in vitro," *Journal of Medicinal Plants Research*, vol. 5, pp. 247-252, 2011.View at: Google ScholarC. C. N. Pillay, A. K. Jäger, D. A. Mulholland, and J. Van Staden, "Cyclooxygenase inhibiting and anti-bacterial activities of South African Erythrina species," *Journal of Ethnopharmacology*, vol. 74, no. 3, pp. 231-237, 2001.View at: Publisher Site | Google ScholarD. Njamen, E. Talla, J. T. Mbafor et al., "Anti-inflammatory activity of erycristagallin, a pterocarpene from Erythrina mildbraedii," *European Journal of Pharmacology*, vol. 468, no. 1, pp. 67-74, 2003.View at: Publisher Site | Google ScholarV. R. Hegde, P. Dai, M. G. Patel et al., "Phospholipase A2Inhibitors from anErythrinaSpecies from Samoa," *Journal of Natural Products*, vol. 60, no. 6, pp. 537-539, 1997.View at: Publisher Site | Google ScholarP. Mandal, T. K. Misra, and M. Ghosal, "Blume Free-radical scavenging activity and phytochemical analysis in the leaf and stem of Drymaria diandra Blume," *International Journal of Integrative Biology*, vol. 7, no. 2, pp. 80-84, 2009.View at: Google ScholarS. Kumar, A. S. Pathania, A. K. Saxena, R. Vishwakarma, A. Ali, and S. Bhusan, "The anticancer potential of flavonoids isolated from the stem bark of Erythrina suberosa through induction of apoptosis and inhibition of STAT signaling pathway in human leukemia HL-60 cells," *Chemico-Biological Interactions*, vol. 205, no. 2, pp. 128-137, 2013.View at: Publisher Site | Google ScholarS. Y. Pan, S. F. Zhou, S. Gao et al., "New perspectives on how to discover drugs from herbal medicines: CAM's outstanding contribution to modern therapeutics," *Evidence-Based Complementary and Alternative Medicine*, vol. 2013, Article ID 627375, 25 pages, 2013.View at: Publisher Site | Google ScholarS. Irungu, "Isolation and characterization of antimicrobial compounds from the plants, Erythrina abyssinica DC. and Chasmanthera Dependens Hochst.," *Kenyatta University, Nairobi, Kenya*, 2012. M.Sc. thesis.View at: Google ScholarW. Chitopoa, I. Muchachaa, and R. Mangoyi, "Evaluation of the antimicrobial activity of erythrina leaf extract," *Journal of Microbiology and Biochemical Technology*, vol. 11, p. 413p, 2019.View at: Google ScholarF. Schultz, G. Anywar, H. Tang et al., "Targeting ESKAPE pathogens with anti-infective medicinal plants from the Greater Mpigi region in Uganda," *Scientific Reports*, vol. 10, p. 11935, 2020.View at: Publisher Site | Google ScholarM. Marita, Efficacy of Medicinal Plants Used by Communities Around Lake Victoria Region and the Samburu against Mycobacteria, Selected Bacteria and Candida Albicans, Kenyatta University, Nairobi, Kenya, 2011.Q. Tan, J. Ni, P. Fang, and C. O. Chen, "A new Erythrin alkaloid glycoside from the seeds of Erythrina crista-galli," *Molecules*, vol. 22, no. 1558, pp. 1-7, 2017.View at: Publisher Site | Google ScholarS. Djogbe, M. Halabalaki, D. Njamen et al., "Erythroidine alkaloids: a novel class of phytoestrogens," *Albans Medicyna*, vol. 80, no. 11, pp. 861-869, 2014.View at: Publisher Site | Google ScholarN. M. Fahmy, E. Al-sayed, M. El-shazly, and A. Nasser Singab, "Alkaloids of genus Erythrina: an updated review," *Natural Product Research*, vol. 34, no. 13, pp. 1891-1912, 2020.View at: Publisher Site | Google ScholarD. Santos Rosa, S. A. Faggion, A. S. Gavin et al., "Erythroine, an alkaloid extracted from flowers of Erythrina mulungu Mart. ex Benth: evaluating its anticonvulsant and anxiolytic potential," *Epilepsy & Behavior*, vol. 23, no. 3, pp. 205-212, 2012.View at: Publisher Site | Google ScholarM. A. R. Serrano, A. N. L. Batista, V. S. Bolzani et al., "Anxiolytic-like effects of erythrinian alkaloids from erythrina suberosa," *Quim Nova*, vol. 34, no. 3, pp. 808-811, 2011.View at: Google ScholarA. Marume, G. Matope, S. Katsande et al., "Wound healing properties of selected plants used in ethnoveterinary medicine," *Frontiers in Pharmacology*, vol. 8, p. 544, 2017.View at: Publisher Site | Google ScholarOECD, "OECD guideline for testing of chemicals: acute oral toxicity—acute toxic class method," *OECD Guideline for Testing of Chemicals*, 2001.View at: Publisher Site | Google ScholarA. Maroyi, "Garden Plants in Zimbabwe: their ethnomedicinal uses and reported toxicity," *Ethnobotany Research and Applications*, vol. 10, pp. 45-57, 2012.View at: Publisher Site | Google ScholarCopyright © 2021 Samuel Baker Obakiro et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.