



# RESEARCH JOURNAL OF PHARMACOGNOSY AND PHYTOCHEMISTRY (RJPP)

ISSN 0975-2331

Volume 02, Issue 03, May - June, 2010

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*Carissa carandas* L. is known as Bengal Currant or Christ's thorn, Karanda, *kerenda* (Malay), *karaunda* (India), *nam phrom* or *namdaeng* (Thailand), *caramba* (Philippines), *kalakai* (Tamil), and *ci huang guo* (Chinese). As per ethnopharmacology, *Carissa carandas* fruits are eaten to treat liver dysfunction, to break fever, to counteract the putrefaction of blood and roots are use in promote digestion. A remarkable advance in the pharmacology of *Carissa* species (*Carissa carandas*) show the antibacterial, scavengers of free radicals and inhibitors of xanthine oxidase, antioxidant, cardiotonic and blood pressure, anti convulsant activity, hepatoprotective, analgesic and anti-inflammatory activity. According to herbal and ayurveda system *Carissa carandas* also useful in the hypoglycemic conditions.

**KEYWORDS:** *Carissa carandas*, Hypoglycemic, Hepatoprotective, Blood pressure.

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*Bacopa* also called as Brahmi is used in anxiety and depression, epilepsy, bronchitis and asthma, gastrointestinal disorders, cardiovascular effects, hyperthyroidism, protection from drug toxicity, Cancer, antioxidant activity, hepatoprotective activity, attention-deficit disorder, revitalizing intellectual functions in children, reduction of pain.

**KEYWORDS:** Brahmi, *Bacopa*

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**KEYWORDS:** Anti-bacterial activity, *Lawsonia inermis*, Henna and Medicinal plants.

**Bacopa (Brahmi)-Open the Gate of Brahma-II**

*Kishu Tripathi and T Siva Kumar.....188*

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**ABSTRACT:**

*Bacopa* also called as Brahmi is used in anxiety and depression, epilepsy, bronchitis and asthma, gastrointestinal disorders, cardiovascular effects, hyperthyroidism, protection from drug toxicity, Cancer, antioxidant activity, hepatoprotective activity, attention-deficit disorder, revitalizing intellectual functions in children, reduction of pain.

**KEYWORDS:** Brahmi, *Bacopa*

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**RESEARCH ARTICLE**

**Anti-Inflammatory and Anti-Nociceptive Activity of *Pandanus tectorius* Parkinson**

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*Pandanus tectorius* (*Pandanaceae*) was being used ethnomedically for treatment of diseases like asthma, cough, and bronchitis and locally as analgesic. Chemical constituents of leaves included triterpene, squalene and phytosterols. The study was aimed to evaluate both anti-inflammatory and anti nociceptive activity of the ethanolic extract of fresh leaves of *Pandanus tectorius* (PTEE) in rats using the carrageenan-induced paw oedema method in rats and tail-flick model in mice at various dose levels. Ceiling effect of the extract was observed at 300 mg/kg in carrageenan test. The effect was equivalent to phenylbutazone (80 mg/kg, p.o.) at 300 mg/kg. Effectiveness of extract in the late phase of inflammation suggests the inhibition of prostaglandins and leukotrienes release. The extract produced marked analgesic activity at 300 mg/kg and the effect was comparable to that of standard drug, Ibuprofen (100 mg/kg, p.o). Preliminary phytochemical screening revealed the presence of tannins, sterols, triterpenes and flavanoids in extract. In conclusion, this study has established the anti-inflammatory activity and analgesic activity of *P. tectorius* and, thus, justifies the ethnic uses of the plant.

**KEYWORDS:** *Pandanus*, *Pandanaceae*, Anti-inflammatory, Antinociceptive.

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**Evaluation of *In Vitro* Anti-Oxidant Activity of *Premna integrifolia* Linn. Mant. Root**

*RH Gokani, SK Lahiri, DD Santani and MB Shah.....196*

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Root of *Premna integrifolia* known under common name Arni/Agnimantha which is an important constituent of well known formulation, Dashmularista used for various ailments. In the present study methanolic extract of the roots was evaluated for its *in-vitro* antioxidant activity using the anti radical, superoxide scavenging, anti lipid peroxidation, hydroxyl radical scavenging and nitric oxide scavenging, assays. The extract showed significant anti-oxidant activity. The study scientifically demonstrated the use of *P. integrifolia* as a potential source of natural antioxidant.

**KEYWORDS:** *P. integrifolia*, *Verbanaceae*, Anti-oxidant activity

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**Cucurbitacin Glycosides from the fruits of *Citrullus colocynthis* (L).**

*N. Sampath Kumar and G. Madhurambal.....200*

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*Citrullus colocynthis* (L.) Schrad. (*Cucurbitaceae*) is an Iranian medicinal plant that has traditionally been used as an abortifacient and to treat constipation, oedema, bacterial infections, cancer and diabetes. As part of our ongoing studies on Iranian medicinal plants, thorough phytochemical investigation was carried out on this plant.

Solvent extraction method was employed to isolate compounds from the ethyl acetate and ethyl methyl ketone fractions of the hydro-ethanolic (90%) extract of the fruits of the locally grown *C. colocynthis*. Structures of the isolated compounds were elucidated by spectroscopic means. Two cucurbitacin glucosides, 2-O-β-D-glucopyranosylcucurbitacin I and 2-O-β-D-glucopyranosylcucurbitacin L were isolated and identified.

**KEYWORDS:** *Citrullus colocynthis*, Cucurbitaceae, Cucurbitacin I, Cucurbitacin L

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Wound healing is a complex pathway that is energy dependent. Non-healing wounds frequently require the use of physical agents to achieve healing. Wound healing disorders present a serious clinical problem and are likely to increase since they are associated with disease such as diabetes, hypertension and obesity. Additionally, increasing life expectancies will cause more people to face such disorders and further aggravate problem thus several animal models have been established to serve as an experimental basis to determine molecular and cellular mechanisms underlying and controlling an undisturbed healing process. *Morinda citrifolia* L. (Noni) (Rubiaceae) has been used in folk remedies by Polynesians, Indians for over 2000 years, and is reported to have a broad range of therapeutic effects, including antibacterial, antiviral, antifungal, antitumor, antihelmintic, analgesic, hypotensive, anti-inflammatory, and immune enhancing effects.

This paper describes a common biochemical pathway that helps to understand, at a molecular level, how the transfer of energy to a wound can result in positive results. The mechanism of action for seed oil of *Morinda citrifolia* L (Noni) is reviewed along with biochemical estimations. Based on our study we conclude that test compound is showing potent anti-oxidant and wound healing activity when compared with positive control i.e. Allazyme and the biochemical estimations also favoured to us in this case.

**KEYWORDS:** Wound healing, *Morinda citrifolia* L (Noni), antifungal, antitumor, analgesic, hypotensive, anti-inflammatory, anti-oxidant

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**KEYWORDS:** suspending agent, *Linum usitatissimum*, flax seed, mucilage

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**KEYWORDS:** *Eupatorium odoratum* leaves, methanol extract, Anti-inflammatory, wound healing

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The present study deals with the determination of Ferrum Phosphoricum and Ferrum metal in some Homeopathic formulations. The method is based on  $Fe^{3+}$  reduce to  $Fe^{2+}$  with hydroxyl ammonium chloride which react with the 1-10 phenanthroline in the pH range 3-5 to form an orange-red colour complex which shows the maximum absorbance at 518 nm. Beer's law is obeyed in the concentration range of 0.5-3mg/ml. Results of the analysis were validated statistically and by recovery studies. The Percentage label claim and Percentage recoveries estimated were close to 100% with low value of standard deviation and Percentage coefficient of variation.

**KEYWORDS:** Ferrum Phosphoricum, Spectrophotometry,  $Fe^{2+}$  1-10 phenanthroline complex.

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**KEYWORDS:** *Erythrina indica*, Flavonoids, Microscopical, Pharmacognosy.

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physico-chemical, morphological, histological parameters presented in this paper may be proposed as parameters to establish the authenticity of *I. glandulifera* and can possibly help to differentiate the drug from its other species

**KEYWORDS:** Pharmacognostical, *Indigofera glandulifera*, stem, Papilionaceae

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*VR Ravikumar, T Sudha and PV Hemalatha*.....228

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*Spirulina plantensis* (fam: cyanophyceae) is a blue green fresh water algae. It is a simple, single- celled alga that thrives in warm alkaline fresh water. It is helical in shape and hence the name *spirulina*. *Spirulina* is being developed as the food of the future due to its very high nutritional value. The extracts were then subjected to antibacterial studies using Muller Minton agar and fresh strains of *E.coli* & *Staphylococcus aureus* and Ciprofloxacin as the standard drug. Antifungal studies were perform using potato dextrose agar medium and fresh strain of *Aspergillus niger* and Griseofulvin, as the standard drug cup diffusion method was followed for both the studies. It was found that when compared with standards and among the extracts, the ethanol extract showed a significant antibacterial & antifungal activity.

**KEYWORDS:** *E.coli*, *Staphylococcus aureus*, *Aspergillus niger*, Griseofulvin, *Spirulina platensis*, Ciprofloxacin, Anti microbial.

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**Evaluation of Anthelmintic Activity of the Wood of *Soymida febrifuga*. (Meliaceae)**

*SA Gangurde, PH Jadhav, SM Dange, SB Datir, NP Jain and SC Pal*.....231

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*Soymida febrifuga* belonging to family *meliaceae* is commonly called mans Rohini in Marathi and traditionally reported for treatment of various diseases. Different parts of *S. febrifuga* are reported in Ayurvedic medicine for treatment of variety of ailments like dysentery, cough, asthma and antiperiodic. Efforts will be made to find out active constituents and their pharmacological action. Traditionally plant was known to have activity against worms and have been used in the treatment of dysentery caused by worms. Thus the present study aims to evaluate the traditional anthelmintic properties of the plant. Aqueous extract and methanol extract of the wood of *S. febrifuga* were screened for anthelmintic activity. Results showed that methanol extract of the wood of *S. febrifuga* is having potent anthelmintic activity. Thus we can conclude that, the anthelmintic property of the plant is due to the polar phytoconstituents present in the wood

**KEYWORDS:** *Soymida febrifuga*, Anthelmintic activity, *Pherotima posthuma*

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**In Vitro Anthelmintic Activity of Various Herbal Plants Extracts Against *Pheritima posthuma***

*Priyanka Patil, JK Patel, PS Kulkarni, MU Patel, CJ Bhavsar and Patel JA*.....234

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Aqueous extracts of leaves of *Cissus quadrangularis*, *Eclipta alba*, *Chrozophora rotleri* and flowers of *Luffa acutangula* were investigated for anthelmintic property against *Pheritima posthuma* (Indian Earth worm). Different concentrations (25, 50 and 100 mg / ml) of each plants aqueous extracts were studied in a bioassay, which involved the determination of time of paralysis and time of death of the worms. Piperazine citrate (10 mg/ml) was used as a standard reference drug. All the aqueous extracts of the three plants exhibited significantly anthelmintic activity against *Pheritima Posthuma*, but flowers of *Luffa Acutangula* demonstrated the best anthelmintic activity in both the parameters.

**KEYWORDS:** Aqueous extracts, *Cissus Quadrangularis*, *Eclipta alba*, *Chrozophora rotleri*, *Luffa acutangula*, anthelmintic and *Pheritima posthuma*

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**ABSTRACT:**

In the present study, the entire plant of *Tephrosia procumbens* Buch-Ham commonly known as Vempalli, Indigo sauvage (Fam-Fabaceae/ Leguminosae) was investigated for the phytochemical screening and antimicrobial property against certain microorganisms using disc diffusion method. The entire plant of *Tephrosia procumbens* were collected, shade dried at room temperature, pulverized and extracted with 95% ethanol in soxhlet extractor to get total ethanolic extract which is further fractionated with the solvents of different polarities. Total aqueous extract was also obtained by macerating the shade dried material with 3% of chloroform water I.P. All the extracts and fractions were subjected for Preliminary Phytochemical screening, which has shown the presence of Carbohydrates, Steroids and Flavonoids and evaluation of antimicrobial property by using disc diffusion method on various pathogenic forms of microorganisms including gram positive, gram negative and fungi. It was found that total ethanolic and total aqueous extract of entire plant of *Tephrosia procumbens* significantly inhibit the growth of microorganisms as compared to standard drugs Gentamycin and streptomycin (Hi-Media Lab. Mumbai).

**KEYWORDS:** *Tephrosia procumbens*, Antimicrobial activity, .

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**A Pharmacognostical Study on *Albizzia lebbek* bark**

Shah UD, Shah MB and Saluja AK.....241

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**ABSTRACT:**

Fresh stem bark of *Albizzia lebbek* was studied for macro and microscopical characters. Betulinic acid was isolated and identified by M. P., co- chromatography with reference standard and IR spectral characteristics. HPTLC method was developed for quantification of betulinic acid using precoated silica gel plates as a stationary phase, Toluene: Acetone: Acetic acid (100:1:0.1) as a mobile phase and anisaldehyde sulphuric acid as a spray reagent. The bark is rough as longitudinal fissures and transverse cracks are present. TS of bark shows rhytidoma as a major portion followed by stone cell bands and secondary phloem with groups of phloem fibres, with starch and prisms of calcium oxalate being found in all the tissues. Saponins, tannins, triterpenoids and flavanoids were found be the major components of the bark. HPTLC method was developed for quantification of betulinic acid by scanning the plates at 523nm. The quality parameters and HPTLC method developed would serve as useful tools in standardization of *Albizzia lebbek*.

**KEYWORDS:** *Albizzia lebbek*, HPTLC, quality parameters, betulinic acid

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**Comparative Antimicrobial Studies of Methanolic Extract of *Muntingia calabura*, *Basella alba* and *Basella rubra* Leaves.**

KB Premakumari, Ayesha Siddiqua, Shanaz Banu, J Josephine, Leno Jenita and Bincy Raj.....246

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Invitro antimicrobial activity of methanolic extract of *Muntingia calabura*, *Basella alba* and *Basella rubra* leaves was investigated. The extracts exhibited marked antimicrobial activity against gram positive and gram negative bacteria and fungi. *Muntingia calabura* showed higher inhibitory effect against the pathogens like *Staphylococcus aureus*, *Bacillus subtilis*, *Escherichia coli*. *Basella rubra* showed mild inhibitory activity against *Staphylococcus aureus*, *Basella alba* showed good inhibitory activity against *Aspergillus niger*. A Comparative study shows maximum antimicrobial activity in *Muntingia calabura* extract.

**KEYWORDS:** *Muntingia calabura*, *Basella alba* and *Basella rubra* and antimicrobial activity.

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**ABSTRACT:**

The methanolic extract of the leaves of *Lagerstroemia parviflora* (Roxb) was tested for its Minimum Inhibitory Concentration (MIC) against different fungi belonging to *Candida*, *Aspergillus* and *Penicillium* species. Further, zones of inhibition produced by the crude extract against the fungal strains were measured and compared with those produced by standard antifungal agent Griseofulvin. The extract was proved that it was highly toxic against *Candida albicans* ATCC10231, *Aspergillus thiogentalis* MTCC 804, *Penicillium notatum* ATCC 6275, *Penicillium funiculosum* NCTC 287, and *Penicillium citrinum* MTCC 1256. The extract showed less toxicity against *Aspergillus niger* (ATCC 6275). The extract was found to be fungistatic in its action.

**KEYWORDS:** *Lagerstroemia parviflora*, antifungal, MIC, leaves

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**ADMINISTRATIVE, EDITORIAL, ADVERTISING AND SUBSCRIPTION OFFICE**

**A and V Publication, E-282 'Saikripa' Sector-4, Pt. Deendayal Upadhyay Nagar, Raipur 492010. (CG) India**

**Phone No. +919406051618. E. mail: [editor.rjppc@gmail.com](mailto:editor.rjppc@gmail.com); Website: [www.anvpublication.org](http://www.anvpublication.org)**

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