

## RESEARCH ARTICLE

**Conservation of Ethnomedicinal *Anisomelis indica*(L) plant**Ulhe SK<sup>1</sup> and Narkhede SD<sup>2\*</sup><sup>1</sup>Institute of Science, Nagpur, India<sup>2</sup>Government Science College, Gadchiroli, India.\*Corresponding Author E-mail: [botanysharu@rediffmail.com](mailto:botanysharu@rediffmail.com)

Manuscript details:	ABSTRACT
<p>Date of publication 18.10.2014</p> <p>Available online on <a href="http://www.ijlsci.in">http://www.ijlsci.in</a></p> <p>ISSN: 2320-964X (Online) ISSN: 2320-7817 (Print)</p> <p><b>Editor: Dr. Arvind Chavhan</b></p> <p><b>Cite this article as:</b> Ulhe SK and Narkhede SD (2014) Conservation of Ethnomedicinal <i>Anisomelis indica</i> (L) plant, <i>Int. J. of Life Sciences</i>, Special issue A2: 163-165.</p>	<p><i>Anisomeles indica</i> (L) commonly called "Gopoli", a wild plant of family Lamiaceae is used traditionally as an analgesic, antiinflammatory and snakebites. Medicinally it has been proven to possess antioxidant and antimicrobial properties.. To search novel active compounds from plant origin and to access the valuable thereupatic properties with minimum side effects, application of advanced method like GC-MS computational techniques plays an important role in the development of drug of interest. The compounds were identified in aerial parts of <i>Anisomeles indica</i>. are <i>Tetracosapentaene,2,6,10,15,19,23-hexamethyl-,22-Stigmasten-3-one</i>. <i>Anisomeles indica</i> is becoming rare in some regions of Nagpur. The efforts should be made to create of awareness in the society regarding its conservation. Plantation of this species should be increased.</p> <p><b>Key word:</b> Conservation, GC-MS, ethnobotany, compounds. <i>Anisomeles indica</i></p>
<p><b>Copyright:</b> © Author(s), This is an open access article under the terms of the Creative Commons Attribution-Non-Commercial - No Derives License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.</p>	<p><b>INTRODUCTION</b></p> <p>The plant <i>Anisomeles indica</i>, commonly known as "Gopoli" belongs to the family Lamiaceae and is an ethonobotanically important medicinal plant. Almost all parts of this plant are being used in traditional medicines to treat various diseases.</p> <p>The plant is used traditionally as an analgesic, antiinflammatory and in skin problems such as snakebites. Medicinally it has been proven to possess various pharmacological activities like antioxidant, antimicrobial, our knowledge of the intimate relationship between early man and plants has come to us mainly through tradition. (Chatterjee and Pakrashi, 1997) Interest and support for the conservation and development of ethnomedicinal plant is increasing in all parts of the world. As per world Health organization (WHO) estimates almost 80% of the population of developing countries relies on traditional medicine mostly plant drugs for their primary health care needs. Ethnomedicinal plants have been identified as one of the trust area by the Ministry and different programmes have been initiated for conservation medicinal plant found in forest and protected areas as well as cultivation of these plants in the degraded forest areas. Usually the dried parts of medicinal plant leaves flower,fruit,seed,stems,wood,bark,roots, and whole plant etc. are used as raw materials for the production traditional remedies of Ayurveda, Siddha, Unani, Homeopathy and other systems of medicine including the folk, ethno or tribal medicine. The plant is used in folk medicine to cure gastric catarrh and intermittent fever. Its essential oil is used in uterine</p>

affection. (Kirtikar *et al.*, 1999; Anonymous, 2003) *A. indica* L. is reported to have antipyretic, analgesic, anti-inflammatory activity and it also acts as natural herbicide in wheat fields (Dharmasiri *et al.*, 2000; 2003). Medicinal plants containing natural and it synthesiz chemical compound belonging to two research targets.

**MATERIALS AND METHODS**

During present work, *Anisomeles indica* has been collected from Gorewada forest areas of the Nagpur region, authenticated and allowed to dry in shade. The shade dried leaf material was powdered using mortar and pestle.

**GC-MS Analysis:** The test plant extracts were subjected to GC-MS analysis at laboratory's (IIT

Bombay) Sophisticated Analytical Instrument Facility (formerly RSIC), Indian Institute of Technology, Powai, Mumbai – 400076, India.

**RESULTS AND DISCUSSION**

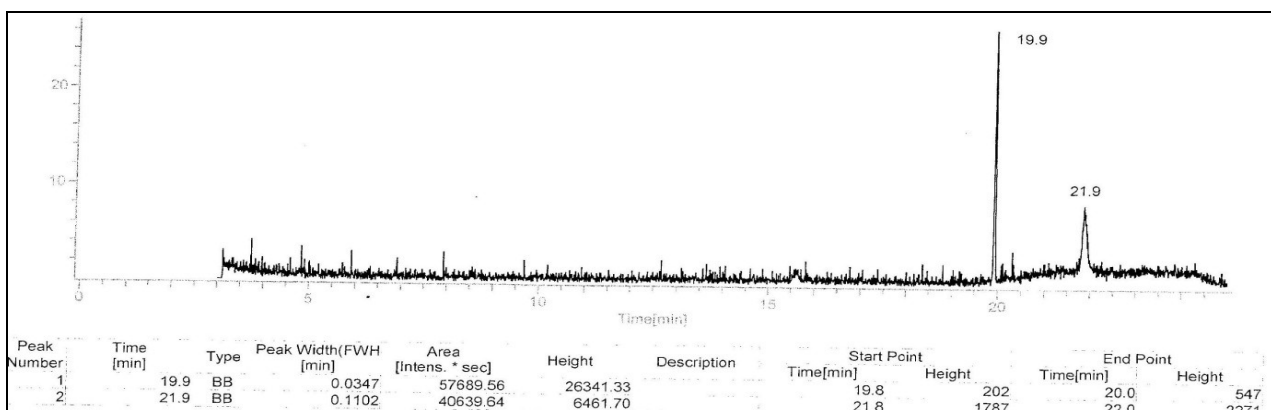
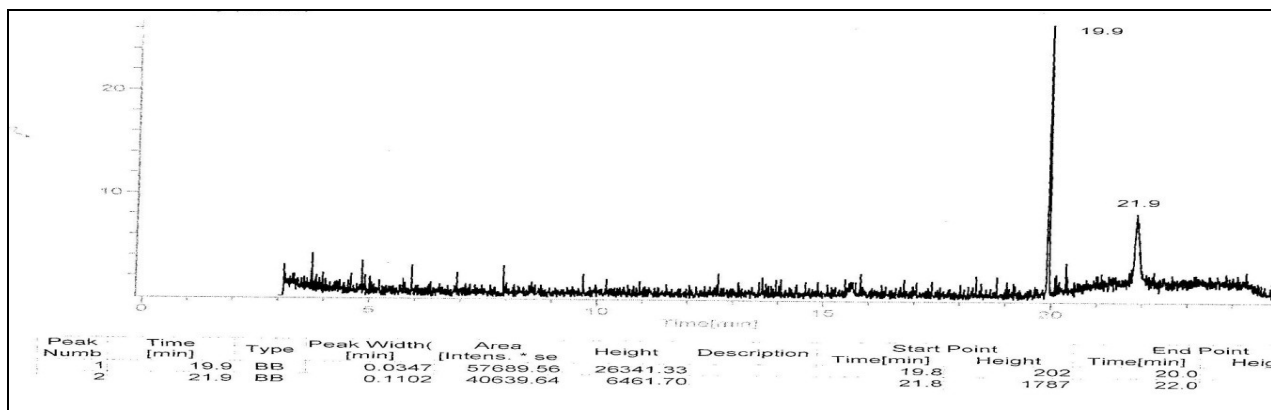
**Ethno medicinal uses of *Anisomelis indica*:**

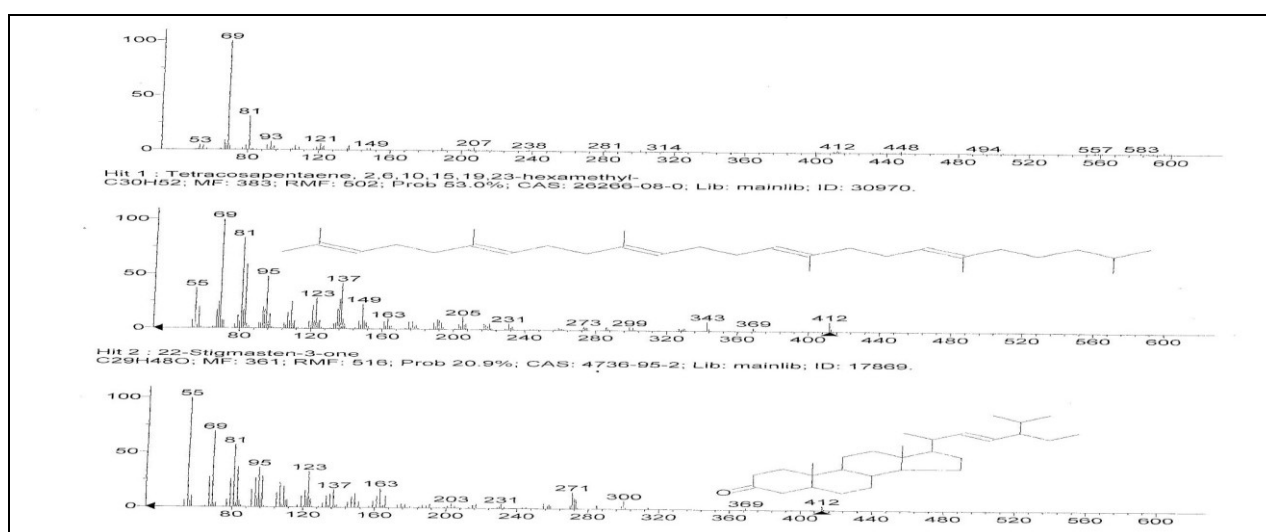
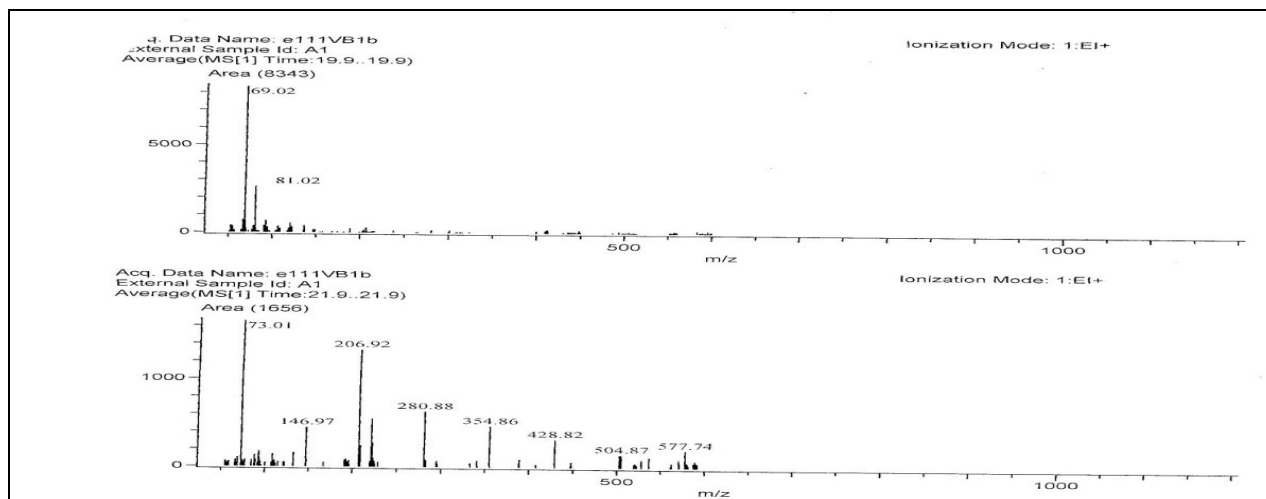
The plant is used in folk medicine as a cure in gastric-catarrrh and intermittent fever and essential oil present in herb is used in uterine affection. (Kirtikar *et al.*, 1999; Anonymous, 2003). *A. indica* Linn. is reported to analgesic, anti-inflammatory activity and acts as natural herbicide in wheat fields. There is need to develop alternative antibiotic drugs from plants. One approach is to screen local medicinal plant which represent rich source of novel antimicrobial agents.

**Table 1:** The chemical Composition *Anisomelis indica* (wild) Linn.

S. N	R.T	Name of compound	Molecular formula	Mol. Weight	Peak Area
1	19.9	Tetracosapentaene,2,6,10,15,19,23-hexamethyl-	C <sub>30</sub> H <sub>52</sub>	412	57689
2	19.9	22-Stigmasten-3-one	C <sub>29</sub> H <sub>48</sub> O	412	57689

**Fig. 1:** GC-MS Chromatogram of *Anisomelis indica* Plant





## CONCLUSION

The present investigation was carried out on *Anisomelis indica* plant of Lamiaceae family to study the presence of medicinally active phytochemicals in the leaves. The chemical composition of the essential compounds from the leaves *Anisomelis indica* of collected from Gorewada forest and PDKV forest which experienced different climatic and geographic circumstances, were determined by GC-MS. The present investigations concluded that the leaf *Anisomelis indica* of contains chemical compounds. These chemicals are widely used in Ayurvedic traditional medicines. This study concludes and recommends further advanced study of these plants, so that it will help in preserving our traditional knowledge. the present GC-MS screening may serve as pavements for the researcher to select a group of plants having similar chemical constituents of

particular class to isolate biologically active principles and future studies on family Lamiaceae.

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