

HELSINGIN YLIOPISTO – HELSINGFORS UNIVERSITET

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Työn nimi – Arbetets titel The taxonomy and uses of medicinally important plants in the genera <i>Datura</i> L. and <i>Solanum</i> L. (Solanaceae) in South- East Asia			
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<p>A literature review was conducted in search of medicinally important species in the genera <i>Datura</i> L. and <i>Solanum</i> L. (Solanaceae) within the framework of the PROSEA (Plant Resources of South-East Asia) project. Nine species, <i>Datura metel</i> L., <i>D. stramonium</i> L., <i>Solanum americanum</i> Mill., <i>S. erianthum</i> D. Don, <i>S. ferox</i> L., <i>S. melongena</i> L., <i>S. nigrum</i> L., <i>S. torvum</i> Sw. and <i>S. violaceum</i> Ortega are used as important medicinal plants in South-East Asia. The taxonomy, origin, distribution and medicinal properties and uses are reviewed for both genera and selected species. The distribution and uses of several minor medicinal <i>Datura</i> and <i>Solanum</i> species, which occur in South-East Asia, are also briefly reviewed.</p> <p>The genus <i>Datura</i> was found to be distinct from the closely related <i>Brugmansia</i> Pers. The taxonomy of the small genus <i>Datura</i> is fairly well established while that of the large genus <i>Solanum</i> still is in a state of flux. Much still remains to be done in both genera, however, especially at an infraspecific level. The origin of the genus <i>Datura</i> seems to lie in the New World, while species in the large genus <i>Solanum</i> have evolved both in the Old and the New Worlds.</p> <p>Chemically, the genus <i>Datura</i> is characterised by tropane alkaloids, including hyoscyamine and scopolamine. The medicinally important species in the genus <i>Solanum</i> contain mainly glycoalkaloids, including spirosolanes and solanidanes. In South-East Asia, <i>Datura</i> is used for example in the treatment of asthma, haemorrhoids, rheumatism, headache, toothache, as an anaesthetic and against parasites. <i>Solanum</i> species are commonly used for gastro-intestinal and skin problems, fevers, and diseases of the respiratory and urinary tracts. Many <i>Solanum</i> species are also important as food plants. When comparing the use of the selected <i>Solanum</i> and <i>Datura</i> species all over the world, all appear to be used medicinally in very similar ways. The genera differ in their other uses: many <i>Solanum</i> species are commonly used for food, while <i>Datura</i> species are frequently used for hallucinogenic purposes.</p>			
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