

## Analisi della bibliografia tecnica e della sitografia

Quello che segue è un elenco delle più importanti e recenti pubblicazioni inerenti studi su *Senecio inaequidens* suddivisi per argomento:

### Lavori generali e informazioni botaniche varie (morfologia, ecologia, cariologia...)

- Bornkamm R., 2002 - On the phytosociological affiliations of an invasive species *Senecio inaequidens* in Berlin. *Preslia*, 74(4): 395-407.
- Bouvet D., Selvaggi A., Siniscalco C., Soldano A., 2013 - *Senecio inaequidens* DC. In: Bouvet D. (ed.), *Piante esotiche invasive in Piemonte. Riconoscimento, distribuzione, impatti*. Museo Regionale di Scienze Naturali, Torino, 352 pp.
- Chichiricco G., Frizzi G., Tammara R., 1979 - Numeri cromosomici per la Flora Italiana. *Informatore Botanico Italiano*, 11: 3-35.
- Curtaz A., Talichet M., Barni E., Bassignana M., Masante D., Pauthenet Y., Siniscalco C., 2011 - Specie esotiche invasive e dannose nei prati di montagna. Caratteristiche, diffusione e metodi di lotta. Institut Agricole Régional, Aosta.
- EPPO, 2006 - EPPO data sheet on Invasive Plants. *Senecio inaequidens*. Web version 2006-02-01 - doc 05-11836.
- Harland S C, (1954) The genus *Senecio* as a subject for cytogenetic investigation. *Proceedings of the Botanical Society of the British Isles*, 1, 256.
- Heger, T., Böhmer, H.J., 2006 - NOBANIS – Invasive Alien Species Fact Sheet – *Senecio inaequidens*. – From: Online Database of the European Network on Invasive Alien Species – NOBANIS [www.nobanis.org](http://www.nobanis.org). Date of access 20/08/2014.
- Lafuma L., Balkwill K., Imbert E., Verlaque R., Maurice,S., 2003 - Ploidy level and origin of the European invasive weed *Senecio inaequidens* (*Asteraceae*). *Plant Systematics & Evolution*. 243(1-2): 59-72.
- USDA, 2005 - Weed Risk Assessment for *S. inaequidens* DC. and *S. madagascariensis* Poir (*Asteraceae*). United States Department of Agriculture, Animal and Plant Health Inspection Service.
- Vanparys V., Cawoy V., Mahaux O., Jacquemart A.-L., 2011 - Comparative study of the reproductive ecology of two co-occurring related plant species: the invasive *Senecio inaequidens* and the native *Jacobaea vulgaris*. *Plant Ecology and Evolution* 144 (1): 3–11.

Vanparys V., Meerts P., Jacquemart A.-L., 2008 - Plant–pollinator interactions: comparison between an invasive and a native congeneric species. *Acta Oecologica*, 34: 361-369.

Wittenberg R. (ed.), 2005 - An inventory of alien species and their threat to biodiversity and economy in Switzerland. CABI Bioscience Switzerland Centre report to the Swiss Agency for Environment, Forests and Landscape.

### **Arrivo in Europa, diffusione, areale distributivo**

Anzalone B., 1976 - Il *Senecio inaequidens* DC. in Italia. *Giornale Botanico Italiano*, 110: 437-438.

Carrara Pantano A., Tosco U., 1959 - Una nuova avventizia per la flora italiana: *Senecio reclinatus* L. f. di origine sud-africana, nella campagna veronese. *Mem. Mus. Civ. St. Nat. Verona, Verona*, 7: 151-157.

Ernst W.H.O., 1998 - Invasion, dispersal and ecology of the South African neophyte *Senecio inaequidens* in the Netherlands: from wool alien to railway and road alien. *Acta Botanica Neerlandica*, 47(1), 131-151.

Heger T., Böhmer H.J., 2005 - The invasion of Central Europe by *Senecio inaequidens* DC. – A complex biogeographical problem. *Erdkunde*, 59, 34-49.

Hilliard O.M, Burt B.L., 1975 - Notes on some plants of Southern Africa chiefly from Natal: IV. *Notes from the Royal Botanic Garden Edinburgh*, 34: 73-100.

Michez J.M., 1994 - *Senecio inaequidens*. From the wool to the vine. *Phytoma*, 468, 39-41.

Muller S., Maillet J., 2004 - *Senecio inaequidens* DC. Le séneçon du Cap. In: Muller S. (coord.), *Plantes invasives en France*. Muséum national d'Histoire naturelle, Paris, 168 pp.

Often A., 1997 - *Senecio inaequidens* DC. and *Solidago rugosa* Mill. found as ruderals in Oslo. *Blyttia*, 55(3): 141-144.

Sans F.X.; Garcia-Serrano H.; Afán I., 2004 - Life-history traits of alien and native senecio species in the Mediterranean region. *Acta Oecologica*, 2 (3): 167-178.

Sirbu C., Oprea A., 2010 - Contribution to the Knowledge of the Alien Flora of Romania: *Rudbeckia triloba* L. and *Senecio inaequidens* DC. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 38(1): 33-36.

Vladimirov V., Petrova A., 2009 - *Senecio inaequidens* (Asteraceae): a new alien species for the Bulgarian flora. *Phytologia Balcanica*, 15(3): 373-375.

## Comportamento invasivo, strategie di invasività, Risk Assessment

- Bossdorf O., Lipowsky A., Prati D., 2008 - Selection of preadapted populations allowed *Senecio inaequidens* to invade Central Europe. *Diversity and Distributions*, Vol. 14, No. 4, 2008, pp. 676-685.
- Caño L., Escarré J., Sans F.X., 2007 - Factors affecting the invasion success of *Senecio inaequidens* and *S. pterophorus* in Mediterranean plant communities. *Journal of Vegetation Science*, 18 (2): 281-288.
- Garcia-Serrano H., Escarré J., Sans F.X., 2004 - Factors that limit the emergence and establishment of the related aliens *Senecio inaequidens* and *S. pterophorus* and the native *S. malacitanus* in Mediterranean climate. *Canadian Journal of Botany* 82: 1346-1355.
- Garcia-Serrano H., Sans F.X., Escarré J., Garnier E., 2005 - A comparative growth analysis between alien and native *Senecio* species with distinct distribution ranges. *Ecoscience* 12(1): 35-43.
- Lachmuth S., Durka W., Schurr F.M., 2010 - The making of a rapid plant invader: genetic diversity and differentiation in the native and invaded range of *Senecio inaequidens*. *Mol Ecol.*, 19 (18): 3952-3967.
- Lachmuth S., Durka W., Schurr F.M., 2011 - Differentiation of reproductive and competitive ability in the invaded range of *Senecio inaequidens*: the role of genetic Allee effects, adaptive and nonadaptive evolution. *New Phytologist*, 192: 529-541.
- Lafuma, L., S. Maurice. 2007 - Increase in mate availability without loss of self-incompatibility in the invasive species *Senecio inaequidens* (Asteraceae). *Oikos*, 116: 201-208.
- López-García M.C., Maillet J., 2005 - Biological characteristics of an invasive south African species. *Biological Invasions* 7 (2): 181-194.
- Masante D., Barni E., Curtaz A., Bassignana M., Vidotto F., Tutino S., Siniscalco C., 2010. Past, present and potential distribution of the invasive *Senecio inaequidens* in the western Italian Alps (Aosta Valley). *Proceedings of the 6th NEOBIOTA conference, Copenhagen (DK)*, 106.
- Monty A., 2009 - Sources de variation phénotypique des traits d'histoire de vie d'une espèce invasive, *Senecio inaequidens* DC. (Asteraceae). Thèse de doctorat. Gembloux, Faculté Universitaire des Sciences Agronomiques. 18 pp., 1 fig., 1 tableau, 7 articles.
- Monty A., Bizoux J.P., Escarré J., Mahy G., 2013 - Rapid plant invasion in distinct climates involves different sources of phenotypic variation. *PloS one* 8(1): 1-10. e55627.
- Monty A., Maurice S., Mahy G., 2010 - Phenotypic traits variation among native diploid, native tetraploid and invasive tetraploid *Senecio inaequidens* DC. (Asteraceae). *Biotechnol. Agron. Soc. Environ.*, 14(4): 627-632.

- Monty A., Mahy G. 2010 - Evolution of dispersal traits along an invasion route in the wind-dispersed *Senecio inaequidens* (Asteraceae). *Oikos* 119: 1563–1570.
- Monty A., Mahy G., 2009 - Clinal differentiation during invasion: *Senecio inaequidens* (Asteraceae) along altitudinal gradients in Europe. *Oecologia*, 159: 305-315.
- Monty A., Stainier C., Lebeau F., Pieret N., Mahy G., 2008 - Seed rain pattern of the invasive weed *Senecio inaequidens* (Asteraceae). *Belgian Journal of Botany*. 141(1): 51-63.
- Pace L., Tamaro F., 2001 - The Main Invasive Alien Plants in the Protected Areas in Central Italy (Abruzzo). In: Visconti G. *et al.*, Global change and protected areas. *Advances in Global Change Research*, 9: 495-504. Kluwer academic publ.
- Prati D., Bossdorf O., 2004 - A comparison of native and introduced populations of the South African Ragwort *Senecio inaequidens* DC. in the field. In: Breckle S.W., Schweizer B., Fangmeier A. (eds.) *Results of worldwide ecological studies*, pp. 353-359. Verlag Günter Heimbach, Stuttgart.
- Vacchiano G., Barni E., Lonati M., Masante D., Curtaz A., Tutino S., Siniscalco C., 2013 - Monitoring and modeling the invasion of the fast spreading alien *Senecio inaequidens* DC. in an alpine region. *Plant Biosystems*, 147(4): 1139-1147.
- Verlinden M., De Boeck H.J., Nijs I., 2014 - Climate warming alters competition between two highly invasive alien plant species and dominant native competitors. *Weed Research* 54, 234–244.
- Verlinden M., Van Kerkhove A., Nijs I., 2013 - Effects of experimental climate warming and associated soil drought on the competition between three highly invasive West European alien plant species and native counterparts. *Plant Ecol.*, 214: 243–254.

### **Impatti, intossicazione animali e uomo**

- Caño L., Escarré J., Vrieling K., Sans F.X., 2009 - Palatability to a generalist herbivore, defence and growth of invasive and native *Senecio* species: testing the evolution of increased competitive ability hypothesis. *Oecologia*, 159: 95-106.
- Castells E., Morante M., Goula M., Pérez N., Dantart J., Escolà A., 2013 - Herbivores on native and exotic *Senecio* plants: is host switching related to plant novelty and insect diet breadth under field conditions? *Insect Conservation and Diversity*. doi: 10.1111/icad.12064.
- Cheeke P.R., 1984. Comparative toxicity and metabolism of pyrrolizidine alkaloids in ruminant and non ruminant herbivores. *Canadian Journal of Animal Science*, 64 (5): 201-202.

- Jacquemart A.L., Vanparys V., Meerts P., 2013 - Generalist versus Specialist Herbivores on the Invasive *Senecio inaequidens* and a Native Related Species: What Makes the Difference? *American Journal of Plant Sciences*, 4: 386-394.
- Reinhardt F., Herle M., Bastiansen F., Streit B., 2003 - Economic Impact of the Spread of Alien Species in Germany. Research Report UFOPLAN-Ref. No. 201 86 211. Federal Environmental Agency. Berlin, Germany.
- Schreber C., Crawley M.J., Porembski S., 2003 - The effects of herbivory and competition on *Senecio inaequidens* DC. (Asteraceae), an invasive alien plant. *Diversity and Distributions*, 9: 415-423.
- Passemard B., 2005. Intoxications du cheval par les séneçons. Thèse pour obtenir le grade de Docteur Vétérinaire. Ecole Nationale Vétérinaire de Toulouse. 94 p.
- Passemard B., Priymenko N., 2007 - L'intoxication des chevaux par les séneçons, une réalité en France. *Revue Médecine Vétérinaire*: 158 (8-9): 425-430:
- Sarcey G, Gault G & Lorgue G (1992) Les intoxications par les senecons chez les equides [Senecio intoxications in horses]. *Point Veterinaire*. 23 (141): 965-970.
- Stegelmeier B.L., 2011 - Pyrrolizidine Alkaloid-Containing Toxic Plants (*Senecio*, *Crotalaria*, *Cynoglossum*, *Amsinckia*, *Heliotropium*, and *Echium* spp.). *Veterinary Clinics of North America: Food Animal Practice*, 27 (2): 419-428.
- Wiedenfeld H., 2011b - Toxicity of Pyrrolizidine Alkaloids – a Serious Health Problem. *Müsbed*, 1(2): 79-87.

### **Tossicità in miele e polline**

- Bifulco E., 2010 - Studio degli aspetti nutrizionali e tossicologici di mieli uniflorali. Tesi di dottorato in Tossicologia degli Alimenti e dell'Ambiente, Ciclo XXIII, a.a. 2009-2010, Università degli Studi di Cagliari.
- Boppré M., Colegate S.M., Edgar J.A., 2005 - Pyrrolizidine alkaloids of *Echium vulgare* honey found in pure pollen. *Agric. Food Chem.*, 53(3): 594-600.
- Di Marco G., Canuti L., Impei S., Leonardi D., Canini, A., 2012 - Nutraceutical properties of honey and pollen produced in a natural park. *Agricultural Sciences*, 3(2): 187-200.
- Dübecke A., Beckh G., Lüllmann C., 2011 - Pyrrolizidine alkaloids in honey and bee pollen. *Food additives and contaminants*, 28(3): 348-358.
- Dübecke A., Beuerle T., Ronczka S., Speer K., Wessel P., Beckh G., Lüllmann C., 2012 - Collection of Pyrrolizidine Alkaloid Plants & Pollen relevant for Honey Production. *Research*

project AiF 16223 BG. German Ministry of Economics and Technology and FEI (Forschungskreis der Ernährungsindustrie).

Kast C., Dübecke A., Kilchenmann V., Bieri K., Böhlen M., Zoller O., Beckh G., Lüllmann C., 2014 - Analysis of Swiss honeys for pyrrolizidine alkaloids. *Journal of Apicultural Research*, 53(1): 75-83.

### **Aspetti tossicologici: alcaloidi, inquinamento alimentare, normative**

Alexander J., Benford D., Boobis A., Eskola M., Fink-Gremmels J., Fürst P., Heppner C., Schlatter J., van Leeuwen R.; Special Issue: Risk assessment of contaminants in food and feed. *EFSA Journal*, 2012 - 10(10): s1004, 12 pp. doi:10.2903/j.efsa.2012.s1004.

Bicchi C., Rubiolo P., Frattini C., 1991 - Off-line supercritical fluid extraction and capillary gas chromatography of pyrrolizidine alkaloids in *Senecio* species. *Journal of Natural Products*, 54 (4): 941-945.

Carvalho S., Macel M., Schlerf M., Moghaddam F.E., Mulder P.P.J., Skidmore A.K., van der Putten W.H., 2013 - Changes in plant defense chemistry (pyrrolizidine alkaloids) revealed through high-resolution spectroscopy. *Journal of Photogrammetry and Remote Sensing*, 80: 51-60.

Crews C., Berthiller F., Krska R., 2010 - Update on analytical methods for toxic pyrrolizidine alkaloids. *Anal. Bioanal. Chem.*, 396: 327-338.

Dimande A.F.P., 2007 - The toxicity of *Senecio inaequidens* DC. Thesis, Magister Scientiae, Department of Paraclinical Sciences, Faculty of Veterinary Science, University of Pretoria.

Dimande A.F.P., Botha C.J., Prozesky L., Bekker L., Rösemann G.M., Labuschagne L., Retief E., 2007 - The toxicity of *Senecio inaequidens* DC. *Journal of the South African Veterinary Association*, 78(3): 121-129. EFSA (European Food Safety Authority), 2007 - Opinion of the Scientific Panel on Contaminants in the Food Chain on a request from the European Commission related to Pyrrolizidine Alkaloids as undesirable substances in Animal Feeds. *EFSA Journal*, 447: 1-51.

EFSA (European Food Safety Authority), Panel on Contaminants in the Food Chain (CONTAM), 2011 - Scientific Opinion on Pyrrolizidine alkaloids in food and feed. *EFSA Journal*, 9(11): 2406, 134 pp. doi:10.2903/j.efsa.

Fu P.P., Xia Q., Lin G., Chou M.W., 2004 - Pyrrolizidine Alkaloids-Genotoxicity, Metabolism Enzymes, Metabolic Activation, and Mechanisms. *Drug Metabolism Reviews*, 36 (1): 1-55.

Kast C., Mühlemann M., Dübecke, A., Beckh, G., Lüllmann, C., 2010 - Alcaloidi pirrolizidinici in natura e importanza per gli alimenti. *L'Ape*, 9-10: 8-11.

- Martinello M., Cristofoli C., Gallina A., Mutinelli F., 2014 - Easy and rapid method for the quantitative determination of pyrrolizidine alkaloids in honey by ultra performance liquid chromatography-mass spectrometry: An evaluation in commercial honey. *Food Control* 37, 146-152.
- Rösemann G.M., Botha C.J., Eloff J.N., 2014 - Distinguishing between toxic and non-toxic pyrrolizidine alkaloids and quantification by liquid chromatography–mass spectrometry. *Phytochemistry Letters* 8: 126-131.
- Stegelmeier B.L., Edgar J.A., Colegate S.M., Gardner D.R., Schoch T.K., Coulombe R.A., Molyneux R.J., 1999. Pyrrolizidine alkaloids plants, metabolism and toxicity. *Journal of Natural Toxins* 8 (1): 95-116.
- Stewart M.J., Steenkamp V., 2001 - Pyrrolizidine Poisoning: A Neglected Area in Human Toxicology. *Therapeutic Drug Monitoring*, 23: 698-708.
- Wiedenfeld H., 2011 - Toxicity of Pyrrolizidine Alkaloids – a Serious Health Problem. *Müsbed*, 1(2): 79-87.
- Wiedenfeld H., 2011. Plants containing pyrrolizidine alkaloids: toxicity and problems. *Food Additives & Contaminants*, 28, 3, p. 282-292.

## **Sitografia**

- DAISIE <http://www.europe-aliens.org/speciesFactsheet.do?speciesId=23664#>
- EPPO [http://www.eppo.int/INVASIVE\\_PLANTS/ias\\_lists.htm](http://www.eppo.int/INVASIVE_PLANTS/ias_lists.htm)
- ISSG <http://www.issg.org/database/species/ecology.asp?si=1458&lang=EN>
- SISSI <http://sissi.divulgando.eu/specie/completo/4>
- CABI <http://www.cabi.org/isc/datasheet/49557#tab1-nav>
- [http://www.infoflora.ch/assets/content/documents/neofite/inva\\_sene\\_ina\\_i.pdf](http://www.infoflora.ch/assets/content/documents/neofite/inva_sene_ina_i.pdf)
- <http://www.infoflora.ch/it/flora/8530-senecio-inaequidens.html#map>
- <http://www.itmonline.org/arts/pas.htm>
- <http://www.henriettes-herb.com/PAs/PAs-toxicity.html>
- [http://www.bfr.bund.de/en/frequently\\_asked\\_questions\\_on\\_pyrrolizidine\\_alkaloids\\_in\\_food-187360.html](http://www.bfr.bund.de/en/frequently_asked_questions_on_pyrrolizidine_alkaloids_in_food-187360.html)
- <http://www.efsa.europa.eu/it/press/news/111108a.htm?wtr1=01>
- [www.equinescienceupdate.co.uk/ragwort1.htm](http://www.equinescienceupdate.co.uk/ragwort1.htm)