

The Biology of Canadian Weeds Series

In 1972 the Canadian Journal of Plant Science announced a new series of peer-reviewed articles on the biology of plants that are weedy in Canada. The series, *The Biology of Canadian Weeds*, resulted from a recommendation by the Canada Weed Committee, an early predecessor of the Canadian Weed Science Society. The purpose is to bring together published and unpublished information on the biology of Canadian weeds in a review format. As an overview of taxonomy/identification, ecology and human-plant interactions, these accounts were intended to provide detailed biological information (including sources), be utilized as a basis for effective, economical and safe control methods and to assist in meeting the information needs of regulatory agencies in Canada. It was also hoped that the series would identify knowledge deficiencies and stimulate further research on the biology of economically important Canadian weeds.

Since the series began there have been more than 140 accounts published on more than 185 species, as well as major updates to five accounts where significant additional information has become available. The value of the series to those interested in weed science as well as plant ecology has been widely recognized and in 1979 Agriculture Canada (Agriculture and Agri-Food Canada) published the first compilation volume containing the first 32 accounts. As of 2010, four subsequent compilation volumes have been published, collating all the accounts up to number 129 (including the three updates).

Contributions or account updates are encouraged and welcomed. Anyone considering contributing to the series should refer to the information published in the Canadian Journal of Plant Science and at the AIC web site (<http://www.aic.ca/index.cfm>).

Specific questions may be directed to: Mirwais Qaderi gaderi@ucalgary.ca

Accounts in Preparation, April 2010

SPECIES ASSIGNED

Aegilops cylindrica Host

Alliaria petiolata (M. Bieb.) Cavara & Grande (update)

Anthoxanthum odoratum L.

Artemesia biennis Willd.

Artemesia stelleriana Besser.

Astragalus miser Douglas

Bidens cernua L., *B. frondosa* L.,
B. tripartita L. & *B. vulgata* Greene

Calamagrostis canadensis (Michx.) Beauv.

Calystegia sepium (L.) R.Br.

Carduus acanthoides L. & *C. nutans* L.
(update)

Carum carvi L.

Cenchrus longispinus (Hack.) Fernald

Cerastium arvense L. & *C. fontanum* Baumg.
subsp. *Vulgare* (Hartm.) Greuter & Burdet

Chaenorrhinum minus (L.) Lange

Chenopodium album L. (update)

Cirsium vulgare (Savi) Ten.

Coronopus didymus (L.) J.E.Sm.

Crataegus monogyna Jacq. & *C. punctata* Jacq.

Erysimum cheiranthoides L.

Euphorbia esula L. (update)

Galinsoga parviflora Cav. &
G. quadriradiata Ruiz. & Pavón (update)

Glechoma hederacea L.

Hedera helix L.

Hieracium aurantiacum L., *H. caespitosum* Dumort

H. florentinum All., *H.x floribundum* Wimm. & Grab.

H.pilosella L.

Hordeum vulgare L. (volunteer barley)

Knautia arvensis (L.) Coult.

Lapsana communis L.

Lathyrus tuberosus L.

Ledum groenlandicum Oeder
[*Rhododendron groenlandicum*]

Linum usitatissimum L.
Medicago sativa L.
Mentha arvensis L.
Muhlenbergia frondosa (Poir.) Fern.
Nepeta cataria L.
Onopordum acanthium L.
Panicum miliaceum L.
Phalaris arundinacea L.
Plantago major L. and *P. rugelii* Dcne. (update)
Polygonum lapathifolium L., *P. pensylvanicum* L.
P. persicaria L. & *P. scabrum* Moench
Ranunculus acris L.
Rhamnus frangula L.
Rhus glabra L. & *R. hirta* (L.) Sudw.
Robinia pseudoacacia L.
Rubus discolor Weihe & Ness and *R. laciniatus* Willd.
Rumex acetosella L.
Rumex crispus L. & *R. obtusifolius* L.
Saponaria officinalis L.
Setaria viridis (L.) P. Beauv.,
S. pumila (Poir.) Roem. & Schult.
and *S. verticillata* (L.) P. Beauv. (update)
Silene vulgaris (Moench) Garcke
Solanum triflorum Nutt.
Spergula arvensis L.
Stachys palustris L.
Tanacetum vulgare L.

Tussilago farfara L.

For information on this series, its style and format, consult the following document.

Cavers, P., Warwick, S. I. and Clements, D. R. 2003. The biology of Canadian weeds. Revised instructions and format. Update lists of accounts published and in preparation. Can. J. Plant Sci. 83: 61–65. <http://www.aic.ca/journals/pdf/weeds/bcw.pdf>

Accounts in **The Biology of Canadian Weeds** have been compiled into separate volumes. The volumes still in print are available for sale through the Agricultural Institute of Canada (http://www.aic.ca/journals/weeds_contents.cfm).

Volume 1, accounts 1–32 OUT OF PRINT

Volume 2, accounts 33–61 OUT OF PRINT

Volume 3, accounts 62–83 http://www.aic.ca/journals/weeds_contents.cfm

Volume 4, accounts 84–102 http://www.aic.ca/journals/weeds_contents.cfm

Volume 5, accounts 103–129 (plus 3 updates to earlier accounts)
http://www.aic.ca/journals/weeds_contents.cfm

THE BIOLOGY OF CANADIAN WEEDS

[A few errors or omissions in the originally published titles, but corrected in compilation Volume 5, are indicated in red text within square brackets. Some accounts included in compilation Volume 5 were significantly updated from the original publication.]

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Alphabetical list of species accounts and compilation volume in which they appear.

Biology of Canadian weeds accounts species name	account number	compilation volume
<i>Abutilon theophrasti</i> Medik.	90	4
<i>Achillea millefolium</i> L.	52	2
<i>Acroptilon repens</i> (L.) DC.	43	2
<i>Agropyron repens</i> (L.) P. Beauv.	24	1
<i>Alliaria petiola</i> (M. Bieb.) Cavara and Grande	35	2
<i>Amaranthus albus</i> L.	126	5
<i>Amaranthus blitoides</i> S. Watson	126	5
<i>Amaranthus blitum</i> L.	126	5
<i>Amaranthus hybridus</i> L.	44	2
<i>Amaranthus hybridus</i> L. (update)	44	5
<i>Amaranthus powellii</i> S. Wats.	44	2
<i>Amaranthus powellii</i> S. Watson (update)	44	5
<i>Amaranthus retroflexus</i> L.	44	2
<i>Amaranthus retroflexus</i> L. (update)	44	5
<i>Ambrosia artemisiifolia</i> L.	11	1
<i>Ambrosia psilostachya</i> DC.	11	1
<i>Ambrosia trifida</i> L.	55	2
<i>Anthriscus sylvestris</i> (L.) Hoffm.	111	5
<i>Apera spica-venti</i> (L.) P. Beauv.	72	3
<i>Arctium lappa</i> L.	38	2
<i>Arctium minus</i> (Hill) Bernh.	38	2
<i>Artemisia absinthium</i> L.	66	3
<i>Artemisia vulgaris</i> L.	118	5
<i>Asclepias syriaca</i> L.	19	1
<i>Aster ericoides</i> L.	125	5
<i>Aster lanceolatus</i> Willd.	113	5
<i>Aster lateriflorus</i> (L.) Britt.	113	5
<i>Aster novae-angliae</i> L.	125	5
<i>Aster pilosus</i> Willd.	114	5

Biology of Canadian weeds accounts species name	account number	compilation volume
<i>Atriplex patula</i> L.	79	3
<i>Atriplex prostrata</i> Boucher ex DC.	79	3
<i>Atriplex rosea</i> L.	79	3
<i>Avena fatua</i> L.	27	1
<i>Barbarea vulgaris</i> R. Br.	97	4
<i>Bromus inermis</i> Leyss.	134	
<i>Bromus tectorum</i> L.	75	3
<i>Cannabis sativa</i> L.	119	5
<i>Cardaria chalepensis</i> (L.) Hand.-Mazz.	3	1
<i>Cardaria draba</i> (L.) Desv.	3	1
<i>Cardaria pubescens</i> (C.A. Mey.) Jarm.	3	1
<i>Carduus acanthoides</i> L.	89	4
<i>Carduus nutans</i> L.	89	4
<i>Centaurea diffusa</i> Lam.	6	1
<i>Centaurea maculosa</i> Lam.	6	1
<i>Centaurea repens</i> L.	43	2
<i>Chenopodium album</i> L.	32	1
<i>Cicuta douglasii</i> (DC.) Coult. & Rose	48	2
<i>Cicuta maculata</i> L.	48	2
<i>Cicuta virosa</i> L.	48	2
<i>Cirsium arvense</i> (L.) Scop.	13	1
<i>Comptonia peregrina</i> (L.) Coult.	16	1
<i>Convolvulus arvensis</i> L.	53	2
<i>Conyza canadensis</i> (L.) Cronquist	115	5
<i>Cornus canadensis</i> L.	20	1
<i>Crataegus crus-galli</i> L.	68	3
<i>Crepis tectorum</i> L.	54	2
<i>Cuscuta campestris</i> Yuncker	133	
<i>Cuscuta epilinum</i> Weihe	133	
<i>Cuscuta epithymum</i> (L.) L.	133	
<i>Cuscuta gronovii</i> Willd. ex Schult.	133	

Biology of Canadian weeds accounts species name	account number	compilation volume
<i>Cuscuta umbrosa</i> Beyr. ex Hook.	133	
<i>Cynoglossum officinale</i> L.	87	4
<i>Cyperus esculentus</i> L.	17	1
<i>Cytisus scoparius</i> (L.) Link	109	5
<i>Danthonia spicata</i> (L.) Beauv. in Roem. & Schult.	92	4
<i>Datura stramonium</i> L.	64	3
<i>Daucus carota</i> L.	5	1
<i>Dennstaedtia punctilobula</i> (Michx.) Moore	26	1
<i>Descurainia sophia</i> (L.) Webb.	22	1
<i>Dipsacus sylvestris</i> Huds.	12	1
<i>Echinochloa crus-galli</i> (L.) Beauv.	77	3
<i>Echium vulgare</i> L.	116	5
<i>Elodea canadensis</i> Michx.	88	4
<i>Epilobium augustifolium</i> L.	93	4
<i>Equisetum arvense</i> L.	49	2
<i>Erucastrum gallicum</i> (Willd.) O. E. Schulz.	108	5
<i>Euphorbia cyparissias</i> L.	85	4
<i>Euphorbia esula</i> L.	39	2
<i>Fagopyrum tataricum</i> (L.) Gaertn.	74	3
<i>Galeopsis tetrahit</i> L.	78	3
<i>Galinsoga ciliata</i> (Raf.) S. F. Blake	58	2
<i>Galinsoga parviflora</i> Cav.	58	2
<i>Galinsoga quadriradiata</i> Ruiz & Pavón	58	2
<i>Galium aparine</i> L.	86	4
<i>Galium mollugo</i> L.	121	5
<i>Galium spurium</i> L.	86	4
<i>Gaultheria shallon</i> Pursh	102	4
<i>Gypsophila paniculata</i> L.	14	1
<i>Helianthus tuberosus</i> L.	101	4
<i>Holcus lanatus</i> L.	82	3
<i>Hordeum jubatum</i> L.	31	1

Biology of Canadian weeds accounts species name	account number	compilation volume
<i>Hydrocharis morsus-ranae</i> L.	124	5
<i>Hypericum perforatum</i> L.	83	3
<i>Hypochoeris radicata</i> L.	50	2
<i>Iva axillaris</i> Pursh	10	1
<i>Kalmia angustifolia</i> L.	1	1
<i>Lactuca serriola</i> L.	122	5
<i>Lappula squarrosa</i> (Retz.) Dumort.	62	3
<i>Leucanthemum vulgare</i> Lam.	128	5
<i>Linaria dalmatica</i> (L.) Mill.	106	5
<i>Linaria vulgaris</i> Mill.	105 [104]	5
<i>Lonicera japonica</i> Thunb.	135	
<i>Lotus corniculatus</i> L.	41	2
<i>Lythrum salicaria</i> L.	100	4
<i>Malva pusilla</i> Sm.	91	4
<i>Malva rotundifolia</i> L.	91	4
<i>Matricaria perforata</i> Mérat	99	4
<i>Medicago lupulina</i> L.	33	2
<i>Melilotus alba</i> Desr.	29	1
<i>Melilotus officinalis</i> (L.) Lam.	29	1
<i>Myrica pensylvanica</i> Loisel.	7	1
<i>Myriophyllum spicatum</i> L.	34	2
<i>Neslia paniculata</i> (L.) Desv.	120	5
<i>Oenothera biennis</i> L.	84	4
<i>Oxalis corniculata</i> L.	71	3
<i>Oxalis dillenii</i> Jacq. ssp. <i>dillenii</i>	71	3
<i>Oxalis dillenii</i> ssp. <i>filipes</i> (Small) Eiten	71	3
<i>Oxalis stricta</i> L.	71	3
<i>Panicum capillare</i> L.	127	5
<i>Plantago lanceolata</i> L.	47	2
<i>Plantago major</i> L.	4	1
<i>Plantago rugelii</i> Dcne.	4	1

Biology of Canadian weeds accounts species name	account number	compilation volume
<i>Poa annua</i> L.	37	2
<i>Polygonum aviculare</i> L.	131	
<i>Polygonum convolvulus</i> L.	60	2
<i>Portulaca oleracea</i> L.	40	2
<i>Potamogeton crispus</i> L.	69	3
<i>Potentilla anserina</i> L.	98	4
<i>Potentilla argentea</i> L.	18	1
<i>Potentilla norvegica</i> L.	18	1
<i>Potentilla recta</i> L.	18	1
<i>Prunus serotina</i> Ehrh.	51	2
<i>Prunus virginiana</i> L.	51	2
<i>Pteridium aquilinum</i> (L.) Kuhn	15	1
<i>Pyrus melanocarpa</i> (Michx.) Willd.	30	1
<i>Ranunculus repens</i> L.	95	4
<i>Raphanus raphanistrum</i> L.	132	
<i>Rhus radicans</i> L.	23	1
<i>Rubus hispidus</i> L.	36	2
<i>Rubus parviflorus</i> Nutt.	105	5
<i>Rubus spectabilis</i> Pursh	105	5
<i>Rubus strigosus</i> Michx.	105	5
<i>Salsola pestifer</i> A. Nels.	65	3
<i>Senecio jacobaea</i> L.	96	4
<i>Senecio vulgaris</i> L.	123	5
<i>Setaria glauca</i> (L.) Beauv.	59	2
<i>Setaria verticillata</i> (L.) Beauv.	59	2
<i>Setaria viridis</i> (L.) Beauv.	70	3
<i>Silene alba</i> (Miller) E.H.L. Krause	25	1
<i>Silene noctiflora</i> L.	46	2
<i>Sinapis arvensis</i> L.	8	1
<i>Sinapis arvensis</i> L. (update)	8	5
<i>Solanum carolinense</i> L.	78	3

Biology of Canadian weeds accounts species name	account number	compilation volume
<i>Solanum nigrum</i> L.	67	3
<i>Solanum ptycanthum</i> Dunal	67	3
<i>Solanum rostratum</i> Dunal	78	3
<i>Solanum sarrachoides</i> Sendt.	67	3
<i>Solidago canadensis</i> L.	45	2
<i>Solidago nemoralis</i> Aiton	130	
<i>Sonchus arvensis</i> L.	94	4
<i>Sonchus asper</i> (L.) Hill	63	3
<i>Sonchus oleraceus</i> L.	63	3
<i>Sorghum halepense</i> (L.) Pers.	61	2
<i>Spiraea latifolia</i> (Aiton) Borkh.	2	1
<i>Stellaria media</i> (L.) Vill.	42	2
<i>Symphyotrichum ericoides</i> (L.) Nesom	125	5
<i>Symphyotrichum lanceolatum</i> (Willd.) Nesom	113	5
<i>Symphyotrichum lateriflorum</i> (L.) Á. Löve & D. Löve	113	5
<i>Symphyotrichum novae-angliae</i> (L.) Nesom	125	5
<i>Symphyotrichum pilosum</i> (Willd.) Nesom	114	5
<i>Taraxacum officinale</i> G. H. Weber ex Wiggers	117	5
<i>Thlaspi arvense</i> L.	9	1
<i>Thlaspi arvense</i> L. (update)	9	5
<i>Tragopogon dubius</i> Scop.	110	5
<i>Tragopogon porrifolius</i> L.	110	5
<i>Tragopogon pratensis</i> L.	110	5
<i>Trifolium repens</i> L.	57	2
<i>Typha</i> × <i>glauca</i> Godr.	73	3
<i>Typha angustifolia</i> L.	73	3
<i>Typha latifolia</i> L.	73	3
<i>Ulex europaeus</i> L.	112	5
<i>Urtica dioica</i> L.	21	1
<i>Vallisneria americana</i> Michx.	103	5
<i>Veratrum viride</i> Aiton	77	3

Biology of Canadian weeds accounts species name	account number	compilation volume
<i>Verbascum blattaria</i> L.	28	1
<i>Verbascum thapsus</i> L.	28	1
<i>Vicia angustifolia</i> L.	76	3
<i>Vicia cracca</i> L.	76	3
<i>Vicia sativa</i> L.	76	3
<i>Vicia tetrasperma</i> (L.) Schreber	76	3
<i>Vicia villosa</i> Roth	76	3
<i>Viola arvensis</i> Murr.	99	4
<i>Xanthium strumarium</i> L.	56	2

