

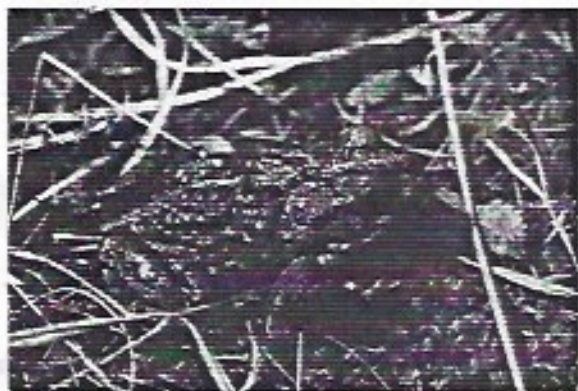
WAGNER NATURAL AREA NEWSLETTER

Volume 3, Number 1, May 1993

Newsletter of the Wagner Natural Area Society, Management Committee
and Volunteer Stewards of Wagner Natural Area, Spruce Grove, Alberta.



1992 - A Bad Year for Toads in Wagner?



Western Toad, *Bufo boreas*

Last spring I enjoyed a superlative evening of "toading" at the Wagner Natural Area. Unfortunately for the faithful who gathered there on May 6, this evening occurred three days before the official annual frog and toad walk! For at least two weeks prior to the toad walk the weather had been warm and there was explosive spawning activity, particularly on the part of the Wood Frogs. Toad spawning commenced a little earlier than in most recent years and it was largely complete by early May. During most years the end of the first week in May falls near the peak (or the start of the peak) of spawning activity by the Wagner population of Western Toads. May 4 was warm and I heard numerous toads calling and saw them moving about in the fading light of day. May 6 was both late for this particular season (for 1992 was an early spring, in which Canada Geese were back from the south at the beginning of March and I heard my first Boreal Chorus Frog on the Ides) and, perhaps more important, a cool evening, so even those toads remaining to spawn were not very active. Few toads called and even fewer were visible. Tadpoles were already hatching from strings of eggs laid earlier. It looked like being a good year for the toads as they were off to a fast start—a little too fast for the people gathered to hear them call and watch them spawn!

Not far away, however, there were signs of problems to come. There were no Wood Frogs and Boreal Chorus Frogs calling from the frog ponds in the river valley just north of the Humanities Building at the University of Alberta. I walked down through the trees to see what was happening at the frog ponds. I was surprised to find that the ponds were empty—no water and no frogs. So little snow and rain had fallen that the only moisture evident was in the leaf litter on what would normally be the pond bottom. There was no warm shallow water for spawning unlike in most years. I can't remember a spring during which these ponds were dry before. There are no other ponds nearby for the frogs to use so they apparently did not reproduce at this site in 1992. If water is present here in 1993, however, frogs should be heard calling from these ponds again. A portion of the adults from 1992 should be available to spawn as well as young frogs in their first season of maturity.

Meanwhile, back in the marl ponds at Wagner, water levels declined, and in June the tadpoles growing there were stranded and were eaten by predators or died from desiccation. As with the frogs spawning in ponds in the river valley, the toads can handle one year of class failure (or perhaps two or three) without losing all the potential spawners in the population, and, when favorable conditions return, they can reproduce and maintain the population.

If the marl ponds are subject to periodic drying it makes one wonder why they are the spawning site of

Contents

1992—A Bad Year for Toads in Wagner?
Editorial: Urban Sprawl
The Wagner Grapevine
Peter Lee—2nd Recognition Award Recipient
President's Report and Profile
Wildflowers of Wagner (3)—River Alder
Upcoming Events

choice for Western Toads at Wagner. Perhaps over time they have been the most stable sites. Beaver dams come and go and without them one gets flowing water which does not provide good tadpole habitat. The marl ponds certainly get lots of sunlight and this may be an advantage from the point of view that it warms the tadpoles so that they can feed and grow rapidly. It may also promote the growth of the epiphytes (tiny plants growing on larger plants) that the tadpoles graze on.

Over the eight years we have regularly watched the spawning and development of Western Toads in Wagner, the marl ponds have supported the rearing of sufficient tadpoles to maintain a healthy population. While no two years are identical, most seem to have been good (1992 being an exception). The toad population here appears not to fluctuate widely in

numbers and the simple but regular censuses we have conducted suggest that, while other species of amphibians in other areas are declining, the species present in Wagner are doing well.

Wayne Roberts
Curator, Zoology Museum
University of Alberta

Author's note: The annual first-week-in-May toad walk will take place this year on Wednesday, May 5. However, I will be going to visit the marl ponds on April 28 and May 12 to monitor progress. Anyone interested is welcome to join me.

Editor's note: Please see Upcoming Events in this newsletter for further details.

Editorial Comment: Is Urban Sprawl Inevitable?

When Wagner Society committee member Alice Hendry first voiced her nightmarish image of Wagner Natural Area in the future, we all laughed. It could end up, she said, as a fountain in a shopping mall in Spruce Grove, a suburb of Greater Edmonton, bearing a plaque inscribed "Wagner Bog." Whenever we refer to this image—for indeed it has become a sort of icon of doom for the Society—we still laugh. But we laugh at the preposterousness of the idea, not because we don't believe it could happen. Wagner's proximity to Edmonton, and the satellite towns of St. Albert, Spruce Grove and Stony Plain, makes the site valuable as a place for nature recreation and gives it a high profile for protection, but at the same time renders it vulnerable to urban expansion from these nuclei of population.

Loss of natural habitat and the vulnerability of natural areas are recognized as a scourge of our times, at least by a segment of society and at least in general terms. There is even a tacit recognition that urban sprawl is implicated in this loss. What I find so disturbing is the almost universal unwillingness to do anything about it. Perhaps the real stumbling block is an inability to face up to the implications of curtailing city growth. And so a schizophrenic attitude prevails, a refusal to make the connections necessary to apprehend reality. Either people assume with resignation the inevitability of urban sprawl; or they consider it to be a good thing. Of course we must save the environment, but urban expansion is synonymous with lower taxes and economic development and therefore increased wealth. How could anyone be against that? is the way of thinking. This attitude is easily detectable in the media. For example, an issue

of an Edmonton weekly newspaper last fall ran three articles in favor of the environment and one bemoaning the lack of housing starts in west Edmonton! I found myself wondering how many readers noticed the contradiction.

My own dread and loathing of urban sprawl has a long history. When I was very young, and my father was still training for his future career, we lived in the British countryside. Then, when I was seven years old and my father was qualified, we moved—from the heart of rural Gloucestershire to a great conurbation in northwest England, a difference of day from night. The trauma of the move was immediate, but it took me a few years to comprehend the full extent of human settlement in the cradle of the Industrial Revolution where I now lived. Later still I realized the aptness of the term conurbation, a linking together of villages and towns and cities that once had been discrete entities separated by countryside. All I knew in my childhood was that these built-up areas seemed to have no end, and getting out into the country, even with the benefit of a car, was a marathon to be undertaken only with physical and psychological exhaustion.

When I was 13 I had another seminal experience. We moved to a new housing development on the outskirts of Liverpool. These houses were being built on a country estate that had been appropriated; indeed, the large house of the former landowner was still standing when we arrived, among the earliest occupants. That first summer I had a marvellous time wandering in the semi-wild jungle of that overgrown estate. Still, even as I enjoyed myself I felt guilty. It was not that I saw myself as a trespasser or a violator, for I had no notion then of Man the disturber, and

when I picked flowers, terrorized voles by capturing them or harassed birds by over-zealous monitoring of their nests I did it innocently. I felt myself rather to be a usurper and a destroyer of the British countryside, whose disappearance I had for some years been lamenting. (I was naive enough to regard the countryside as "natural"; only much later did I realize how much Man had changed the original face of Britain.) For the next year or two I watched in dismay as houses and narrow strips of empty garden overtook and laid waste that rural estate—two hundred families where once there had only been one. When I asked my father where all the people came from and why all these new houses had to be built, he replied with a shrug that "people have to live somewhere." I was angry to think that the latecomers, moving in with such arrogant determination and confidence, had no inkling of the sacrifices that had been made to accommodate them.

Because my father had a penchant for living in new houses, this scenario of occupying newly developed land was repeated more than once. By my late teens I had come to see myself as a product of the great post-industrial population explosion, not so much *displaced* as *w/*placed, landless, sustained by artifice and human ingenuity rather than nature. And I, too, was schizophrenic: I saw myself as both a champion and an enemy of the British countryside. Eventually, I came to Canada. I came for a combination of reasons, among them the desire to escape the stress of living in conurbations and the pain of seeing natural things supplanted by their constant expansion. And I came to escape my sense of guilt.

I did not find escape, of course: I merely became part of the problem here. For in Canada the same principle applies. Although the built-up areas occupy a much smaller proportion of the land surface than in Britain, human activity here is still catastrophic to wildlife. Almost no mega-project can take place in the wilderness without having a major impact on wildlife or aboriginal populations; the long arm of agriculture has swept away vast areas of wild land; and Canadian cities, ever-swelling, engulf irreplaceable parcels of native habitat. The principle applies everywhere. Humans are six-billion strong around the world and our destructive influence is global.

Because many of us purport to value nature, we cannot face the fact that we are its enemy. This schizophrenia, as I have called it, may explain why, when it comes to city growth, so few of us challenge it. Even naturalists who vigorously fight developments in wilderness areas fall silent when it comes to urban sprawl. Only a few individuals and groups who believe in zero population growth (locally, for example, the Sustainable Population Society) are willing to speak out against it. Yet, really, is continual urban expansion inevitable? Is it even logically possible? People talk about a "slippery slope" in issues such as eugenics and euthanasia. What of the slippery slope of urban growth? Will Edmonton one day extend to the gates of Jasper National Park in the west and south past Red Deer, to be separated only by a narrow green belt from the conurbation of Calgary? Logically, in a finite country on a finite planet, there *has* to be an end to urban expansion. Why cannot it be *now*, before more wild land is destroyed? If our attitude does not change, our natural areas will not be able to resist the pressure of human increase, despite our best efforts at conservation, for "people have to live somewhere." And even if we were able to defend them, how "natural" would these natural areas—mere zoos and botanic gardens—be in the midst of sprawling suburbia? It may turn out that the survival of tiny populations of non-human species in restricted sites guarantees almost nothing when it comes to biodiversity. What we should be setting aside is huge interconnected tracts of land that not only permit the present survival of species in large ecosystems but also their movement, migration, and opportunity to evolve—in other words, their survival in the future.

I invite you all to ask yourselves the question, Can urban sprawl be stopped? If you agree that it can, ask next, What can we do to stop it? What are the implications of curtailing city growth: social, economic, natural? Reducing our impact on nature by reducing human activity brings huge payoffs, and not just the obvious one of our own survival. Imagine the peace of mind, the freedom from guilt, that could be ours if we were able to say, "We have seen the enemy, and it is no longer us!"

Patsy Cotterill

Your opinions, questions, comments, suggestions and letters are welcome. Please mail submissions to: The Editor, *Wagner Natural Area Newsletter*, 7401 156 Street, Edmonton, Alberta T5R 1X4

For further information on Wagner Natural Area or other natural areas in the province, or to report information or emergency situations in natural areas, call Natural and Protected Areas at 427-5209.



The Wagner Grapevine



Annual Members' Night, October 21, 1992

This successful event was attended by more than 50 people, many of whom took the opportunity to subscribe or to renew subscriptions to membership in Wagner Society. Jim Butler, internationally well-known conservationist and expert on ecotourism, spoke in his inimitable style on **Small Protected Areas: Their Benefits to Society and Biological Conservation**. Peter Lee then spoke on **The Role of Wagner and other Small Protected Areas in Alberta**, helped by his young son, Mark, who is obviously getting in some early experience in the art of public speaking! Mark and his sister and mother were present to witness Peter become the second recipient of the Wagner Recognition Award (see story next page).

Congratulations Once Again, Eddie!

Edgar Jones, Wagner executive member and first recipient of our Wagner Recognition Award, is about to receive a much higher accolade. On June 9th, 1993, he will be awarded an honorary degree of doctor of laws from the University of Alberta in recognition of his accomplishments as a naturalist, wildlife cinematographer and educator. In a career spanning 40 years, Eddie has produced 10 films, his first, in 1959, being *Arctic Canada*. He has also shot footage for many TV wildlife programs such as *Wild Kingdom*, *Untamed World*, *The Nature of Things, Canada Outdoors*, and *Lorne Greene's New Wilderness*. Eddie's role in the establishment of Wagner Natural Area was described in the May 1992 issue of *Wagner Natural Area Newsletter* (p. 4) and he was further profiled in *The Steward*, Issue 19, July 1992, p. 4.

New Issue of the Trail Guide

We are currently having our guidebook to the Marl Pond Trail reprinted, thanks to a CRC grant from the County of Parkland for this purpose. Although the

guide will look substantially the same as before, practical information in it has been updated, and some slight revisions have been made to the text. A more useful and up-to-date bibliography has been included. Look for the new guide in the trail boxes this spring. As well, a couple of trail posts will be relocated, to correspond better with the features described in the guide.

Car Theft Alert!

With the main field season approaching, it is timely to remind visitors to Wagner about problems with car theft in previous years. It is unsafe to stow valuables in cars, even in trunks. Leave your valuables at home or, if you must bring them (such as camera equipment), carry them with you as you hike the trails. Lock your car at all times.

Wagner Pins! Wagner T-shirts!

We have numerous pins left to sell at \$5 each. The pins are 3/4 inch in diameter and feature a yellow lady's-slipper outlined in gold, with yellow "slipper," brown petals and green bract, on a pale green background. There are also a few T-shirts left (50% polyester-cotton, white, with the lady's-slipper orchid motif in yellow, brown and green on the upper left) in various sizes. Children's T-shirts sell for \$12, adults' for \$14. To purchase, contact Patsy at 481-1525.

Dave Ealey, New Executive Member

Well known and busy in various naturalists' circles, Dave has nevertheless consented to join our Wagner executive team in the position of vice-president. Dave is a biologist by training and experience and currently works for Alberta Environmental Protection as an editor. (So we'd better watch our apostrophes and dangling modifiers, eh Dave?) Welcome to the gang!

Wagner Society Executive, 1993

President - Derek Johnson (436-8231)

Past President - Terry Thormin (482-1389)

Vice-President - Dave Ealey (422-0858)

Treasurer/Membership Director - Janice Cantafio (963-3938)

Secretary/Newsletter Editor - Patsy Cotterill (481-1525)

Director/Public Relations - Alice Hendry (962-4836)

Director - Barry Jenkins (458-1794)

Director - Edgar Jones (436-5327)

Peter Lee Receives Second Wagner Appreciation Award



Peter Lee, Manager of the province's Natural Areas and Volunteer Steward Programs, was presented with the Wagner Society's Appreciation

Award at the Annual Members' Night at the Provincial Museum on October 21, 1992. The award, an engraved plaque, recognizes the contributions of people who have given or are giving outstanding service in the conservation of Wagner Natural Area. Last year, Edgar T. Jones was the first recipient of the award.

Peter has been involved with the Wagner Society since its inception in the early 1980s. He already understood the immense biological wealth of the Wagner property, and he soon recognized the sincerity and determination of the people who were banding together to form the Wagner Society. These two things persuaded him that working toward the long-term management of this site was a worthy investment of his time. With advice, assistance and support, Peter helped steer the Society, especially during its

formative stages, through many difficult issues to do with management and conservation. His commitment of time and energy, personal (including hands-on help during work parties!) as well as professional (channelling the resources of the Natural Areas Program), have played a major role in the various successes that the Society has achieved over the years.

Peter has used his experiences with the Wagner Natural Area and with the Society as a template that has been applied to many other protected areas and conservation issues throughout the province. For example, the provincial Volunteer Steward Program, whereby interested individuals or groups "adopt" a particular site, taking on responsibility for monitoring and managing it, is a direct spin-off of Peter's experience with Wagner. So is the idea of issuing long-term leasing arrangements on Natural Areas to allow these volunteers to properly manage these important sites. There are many other examples. Most important is the realization that much can be accomplished through partnerships between public groups and individuals and dedicated public employees such as Peter. The lesson has been learned and has been applied throughout the province.

Our thanks, Peter, and congratulations on a well-deserved award. We look forward to many more years of working with you and having fun together!

President's Report

Now that construction of the interchange at Highway 16X and Secondary Road 794 is well on its way, the Wagner Society is hoping to get back to doing some of the things we'd *like* to do rather than the things we *have* to do. The interchange is definitely a blot on the landscape in such close proximity to the natural area, but its final location has much less impact on the natural area than the original location proposed by Alberta Transportation and Utilities would have had. Recently, Alberta Transportation & Utilities held an open house to review service road options along Highway 16X; five alternative routes were presented, one requiring additional right-of-way space from the natural area. The Society continues to monitor developments regarding a service road in the area.

Over the past few months the Society has been revising and updating the Marl Pond Trail guidebook. A grant from the County of Parkland will help offset the costs of reissuing the revised guide. The Society also continues to expand its slide collection of the

natural area. Presentations were made to several groups during the past year. With the road issue quieting down for the time being, the executive has had a chance to consider other activities. One of these is to implement some of the recommendations made in the management plan for the area done in 1986 by Cathy Mowat, a graduate student from the University of Calgary.

With spring fast arriving, we look forward to a number of seasonal activities: the Frog and Toad Walk, the Spring Clean-up, the May Species Count and the Orchid Walk. (Look for dates and details of these events on the back page.) The Society is also involved, both as volunteers and as participants, in the second Volunteer Steward Conference being held at the Rocky Mountain YMCA near Seebe, June 4-6. That promises to be an information- and fun-filled weekend!

J. Derek Johnson

President's Profile



Derek Johnson began his first of two years as President of the Wagner Society this January, after serving the usual apprenticeship for the position as vice-president for two years.

Derek is a native Albertan, born, raised and educated in Calgary. He received his B.Sc. in botany from the University of Calgary in 1973 and his M.Sc. in 1975, his special interests being plant taxonomy and ecology. He came to Edmonton in 1976 to work for the Canadian Forestry Service (now Forestry Canada) in the land classification section. In 1981 he began working on a peatland classification and ecology project covering the three prairie provinces. Most of his field work

continues to centre on peatland research. Derek is in the top rank when it comes to knowledge of vascular plants of Canada's prairie, parkland and boreal forest zones, and his work with peatlands has given him the incentive to develop that rare commodity, a good grasp of the bryophyte (moss, liverwort and lichen) flora, too.

A botanist by hobby as well as by profession, Derek is very willing to share his knowledge through lecture presentations and by leading field trips for various amateur naturalists' organizations, in which he also participates actively in executive or committee positions. He is currently a director of the Alberta Native Plant Council representing the Federation of Alberta Naturalists (FAN) on this council—and vice versa. He has been a member of Wagner Natural Area Society almost since its inception in 1982, first as a representative of FAN and then of the Edmonton Natural History Club. Derek coordinates, with great precision and care, the results of the annual provincial May Count of Species in Flower every year, as well as taking part in it himself!

The Mallard

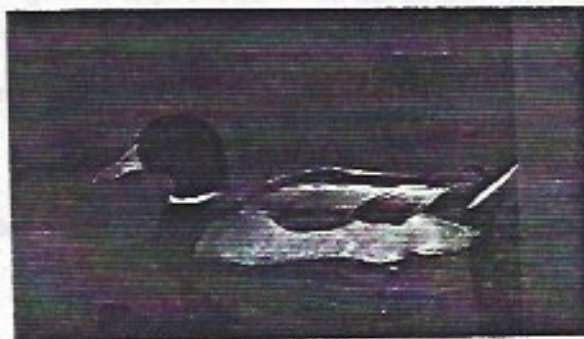
by Cy Hampson*

Almost before the pussy willow has appeared in the first flush of spring, the mallard is winging his way northward yielding to the irresistible urge to migrate. While there is yet ice upon our lakes and rivers and the sod is held in fetters of frosty steel, he is already upon us in countless numbers, his vivid colors in glorious contrast to a drab land in the last grasp of winter.

The drake, resplendent in full breeding plumage, is a subject worthy of closer study. The combination of bronzy-red breast, light underparts, beautifully barred flanks and bright blue speculum, together with brilliant orange feet and metallic-green head, proclaim his identity. His mottled brown mate with blue speculum edged in purest white is less conspicuous. Careful observation of the courtship of these early arrivals will serve as an introduction to the many and varied avian displays to follow as spring advances.

Mallards breed for the most part in the fields and meadows about our ponds and watercourses, concealing their nests in stubble, grass and weeds. The nest itself is lined with fluffy down and distinctive feathers which increase in abundance and profusion as incubation advances. Since incubation begins with the laying of the last egg, the downy ducklings all emerge at about the same time. Handsome they are in their coats of honey-yellow and warm shades of brown. As soon as they are strong enough, the hen leads them to the nearest water where she teaches them to forage for food.

Alert, wary and swift of wing, the mallard holds a place of distinction among game birds of the world. While for most parts of Alberta mallards are known as migrants, their hardiness is attested by the fact that they will winter as far north as open water and food supply



are available. Even Greenland and Alaska have large winter populations.

Twice a year, in spring and autumn, the prairies of Alberta resound to the roar of thousands of wings as the annual ebb and flow of waterfowl migration proceeds. The mallard is both the beginning and the end of this magnificent procession.

*Reprinted with permission of The Alberta Teachers' Association from *The ATA Magazine*, October 1960.

Editor's Note: Although mallards are not often seen on the marl ponds at Wagner, we have more than once disturbed mallards on their nests in the fens or in willow swamp during May Count at the end of May. What their breeding success is we do not know.

Wildflowers of Wagner (3)

Alnus tenuifolia Nutt. —River Alder

This shrub or slender grey-barked tree to 10 metres (m) high grows most abundantly along river- and streamsides. In Wagner, it is not particularly common except along Morgan Creek on the east side of the property but is also found in the north-central meadow (at the end of the Marl Pond trail) and south of the Cabin Trail.

The alder produces its flowers in catkins, the male and female separately, but on the same tree. River Alder's catkins, formed in summer on the new growth, expand the following spring, mid to late March or early April, before the leaves open. **Male Flowers.** The male catkins (b), borne in clusters of 1-3 at the ends of branches, elongate to about 5-6 centimetres (cm) by the time they are shedding pollen. The pollen-bearing stamens are borne in 4-lobed cup-like flowers on the underside of stalked structures (bracts) along the axis of the catkin. The tip of the bract is also expanded vertically into a shield-shaped structure of reddish-brown which gives the catkin its color. **Female Flowers.** The female catkins (a), only 0.5 cm long, occur in clusters of 3-4 on twig branches further back (that is, toward the tree trunk) from the male catkins. Each catkin is a spiral arrangement of simple female flowers, each with two pinkish-red stigmas (easily seen with the naked eye) protruding above a protective, outer fleshy green bract. The stigmas become dusted with pollen blown about by the wind. The female

Betulaceae —Birch Family

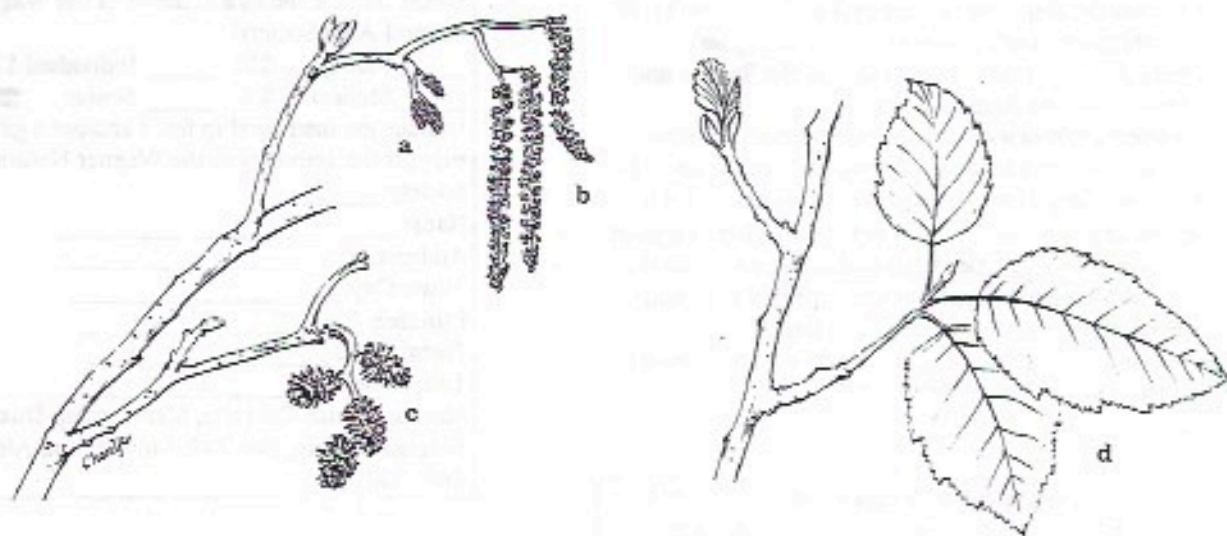
catkins develop into green, barrel-shaped fruiting "cones" (c) about 1 cm long, in which the bracts eventually become brown and woody. Inside the bracts are the fruits, straw-colored nutlets without margins (wings), about 2.5-3 millimetres (mm) long. The nutlets ripen and disperse in the fall, and may be dispersed considerable distances from the parent by water currents.

Leaves. The leaves, about 5-6 cm long, are ovate to elliptic in shape, and wavy-lobed, with fine saw teeth along the lobes. They are usually hairless, and prominently veined beneath.

Closely-related Species and Distribution. Green Mountain Alder, *Alnus crispa*, is common in our area, but on much drier sites, such as pine forests in sandhills. It is a bushy shrub to 4 m tall, with finely saw-toothed but not lobed leaves. The nutlets have broad, membranous margins or wings, and the catkins expand at the same time as the leaves on new growth of the current season. *Alnus tenuifolia* is regarded by some authorities as a variety of *A. rugosa*, a wide-ranging shrub or tree that occurs across Canada.

Special Features. The more superficial roots of alder form root nodules containing nitrogen-fixing bacteria, which greatly increase the plant's access to this vital nutrient.

JSC



Drawings by Yuet Chan

Upcoming Events

Wednesdays, April 28, May 5 and May 12. Frog and Toad Walks, led by Wayne Roberts (see front page of newsletter). Three opportunities for you to catch the thrilling notes of Western Toads and watch their mating drama. Come warmly dressed for an outdoor performance with a lot of standing around. Meet at the main gate at Wagner at 6:30 p.m.

Saturday, May 15. Annual Spring Clean-up. Bring strong rubber gloves and sturdy clothes for this annual chore of picking up garbage, clearing deadfall and sprucing up the picnic shelter and outhouses. Usually lasts the morning. Meet at the main gate at 10 a.m.

Sunday, May 30. Annual May Count of Species in Flower. Anyone may join in this spring rite, which is being repeated elsewhere in Edmonton and all across the province, to determine flowering stages and assess the earliness or lateness of the spring. Be prepared for some cross-country hiking—we don't stick to the trails. You may, of course, come for part of the trip if you can't spare a day. Meet at the main gate at 10:00 a.m.

Thursday, June 24. Orchid Walk. Carla Zelmer, a postgraduate botany student studying orchids, will lead this evening trip, which will include the Cabin Trail. With luck, this will be prime orchid time, with a good chance of seeing a variety of species. Meet at the main gate at 7:00 p.m.

Saturday, July 31. Annual Field Day and (this year, for the first time) Bug Walk, 12:00–4:00 p.m. Terry Thormin, museum entomologist, birder and orchid fancier, will lead trips that will zero in on Wagner's abounding insect life. Find him, other Wagner members and our Wagner display in the picnic shelter. Tours 12:30, 1:30 and 3:00 p.m.

October. Annual Members' Night at the Provincial Museum, to give our members at large a chance to get together, hear what the executive has been doing and learn more about Wagner or related natural history. Date and speakers TBA.

For more information on these events, contact Alice Hendry at 962-4836 or Patsy Cotterill at 481-1525.

Membership in Wagner Natural Area Society

The membership year is January 1 to December 31. If you haven't renewed, please consider doing so promptly to continue your support of the Society and Wagner Natural Area. Fill out the membership/renewal form below and mail it with a cheque made out to Wagner Natural Area Society. Do the same thing if you are joining the Society for the first time. As a member, you will receive free copies of the newsletter, (two per year) and an invitation to the Annual Members' Night in October. Field trips and other activities are organized from time to time. Donations are tax-deductible. For more information, contact Janice Cantafio, 963-3938.

Volunteer hours spent on Wagner business in 1992 numbered 721, down from the 1,000+ hours of recent years when the Society was contesting road development.

Please include me as a member of the Wagner Natural Area Society!

Family \$12 Individual \$10

Student \$8 Senior 

Besides my membership fee, I enclose a gift to support the activities of the Wagner Natural Area Society: _____

Name _____

Address _____

Town/City _____

Province _____

Postal Code _____

Telephone No. _____

Mail to: Janice Cantafio, Membership Director,
Wagner Society, Box 842, Stony Plain, Alberta
T0E 2G0