



NEWSLETTER

SOUTH LAKE SIMCOE NATURALISTS

SLSN is an incorporated not-for-profit Member of Ontario Nature.

Post Office Box 1044 Sutton West, Ontario, L0E 1R0

Telephone 905-722-8021

(www.slsnc.ca)

Research Partner with The Zephyr Society of Lake Simcoe (www.zephyrsociety.ca)

Member: Rescue Lake Simcoe Coalition

Member: Ontario Greenbelt Alliance

Note: Please renew your membership to receive future Newsletters

Meetings and Outings

Meetings: All Meetings start at 7:30 p.m. at the York Region Police Building Meeting Room (Baseline Road between McCowan and Civic Centre Road) unless noted otherwise. Members events (insurance compliance). Visitors welcome.

York Regional Police, 3 District Community Meeting Room
3527 Baseline Road, Georgina.



Tuesday, Sept. 20 **Shorebirds:** Club members' research and presentation. Shorebirds (or "waders", as they are called in the Old World) are real puzzlers to the novice, and to many experienced birders as well (Roger Tory Peterson). In Eastern North America there are 8 plovers and about 30 sandpipers. And, many of them are migrating through South Lake Simcoe now, going south. This will be a bird review night, one that all naturalists should do whenever they get the opportunity. You never know when that real rarity will be on a Simcoe beach right in front of you, and you will want to know what it is!

Note: This is the third Tuesday of the month, not the usual second Tuesday in September.

Tuesday, Oct. 11 **Insect Decline Crisis – Re-visited:** We know that insect species are being Lost across the planet: Club members research and presentation. This will be a more in-depth review and analysis of an expose article in the December 2015 "Canadian Geographic" Magazine. "Insects are by far the most populous species on Earth, and they seem to be disappearing. So why aren't more people concerned?" This serious wildlife and planetary conservation issue needs urgently to be explored by us all. **Please read the article – pp. 51-56 Canadian Geographic, Dec. 2015 at the local library, or on-line for the conversation.**

- *Paul Harpley will provide a brief presentation primer in preparation for the S. E. Sutton Chimney Swift habitat Survey (Wed. Oct 12) evening as well as information about the future research.*

Tuesday, Nov. 8 **Butterflies of the Rouge National Urban Park: Annual Autumn Event.** Don't miss this must-see conservation biology presentation! Everyone welcome. **Park Ecologist Leonardo Cabrera** will be our guest presenter. There will be a small silent auction and baked goods for sale as in past years. Club members are

asked to please donate a few, but unique auction items AND home-baking. *Paid up Club members reserve seats with \$2.00 donation.*

Non-members \$5.00. **The event is at the Egypt Hall.** Phone Paul 905-722-8021 or Norma 905-476-4747 for further information.

Outings: All regular outings – Note: **Paid-up members may participate (for insurance compliance).**

2016 AUTUMN

Wednesday, Oct. 12 **Chimney Swift Roost and Nest location Study:** Club members and researchers with the Zephyr Society of Lake Simcoe have confirmed active Chimney Swift populations in South-west Sutton. An Ontario endangered species, Chimney Swifts in Sutton in areas including development proposals, this initial survey of habitat areas will be undertaken in preparation for detailed research in 2017. Meet at 5:00 p.m. at the Tim Horton's in Sutton on Dalton Rd, to be part of this important project. Dress for the weather. Bring binoculars etc.

Sunday, Oct. 23 **Autumn Birding and Nature Study:** The annual Autumn Birding trip along Lake Simcoe will concentrate on waterfowl and shorebirds, this year to the east. Rare migrants can sometimes turn up unexpectedly so be prepared. Later in the day we may do some hiking and general nature study in one of our local natural areas. Meet at 7:30 a.m. at the Tim Horton's in Sutton on Dalton Road. Dress for the weather. Bring binoculars etc.

Sunday, Jan. 1 **Sutton Christmas Bird Count:** The Annual Count this year is an official Audubon Society and Bird Studies Canada Count. Call Paul to register 905-722-8021. Coordinated by Paul and Debra Harpley.

Date in January **Rouge National Urban Park Winter Bird Count:** Call to register 905-722-8021. Date to be announced by National Park later in the year. Area 10.

Date in February **Winter Trail Outing:** A traditional club afternoon adventure in a Regional Forest location in the South Lake Simcoe area. Actual details of the trip will depend on weather and existing conditions snowshoeing, skiing, hiking. Meet at Coffee Time, Highway 48 south of Baldwin at 1:00 p.m. Dress for the weather. Phone 905-722-8021 if you plan to participate.

Date late February **Deer Census in Rouge Park National Park:** Call to register 905-722-8021. Date to be announced later based on winter weather conditions.

**Members please consider writing and submitting an article to the Talon Newsletter.
Submit to one of the Executive members.**

SLSN Executive Meeting Highlights – 2016-08-31

- Regular Meetings plan and schedule Fall 2016
- Outings plan and schedule Fall 2016
- Greenbelt Draft Plan and comments – deficiencies
- Provincial Ban on Corporate and Union Contributions to Ontario's Municipal Elections Campaigns for Candidates
- Provincial recent announcements about future restrictions on Provincial Politicians Fundraising etc.
- Ainslie Hill Proposed Development – S.W. Sutton - update and findings of review
- Chimney Swift – research, status and future steps
- Walmart west site restoration, Keswick – evaluation and future
- Dalton Road commercial development
- Oxford Developments Proposal – Black River Road – Sutton
- Other Georgina smaller development proposals - review
- Georgina Official Plan - deficiencies
- Annual Autumn Event
- Global Insect decline – what can Canada do – Canadian Geographic challenge
- Caribou in northern Ontario
- Asian Carp invasive species status and initiatives at the University of Toronto
- Georgina Bird and Mammal highlights - documentation
- Formal acceptance of rare Gray-cheeked thrush record on past Sutton Christmas Bird Count by Ontario Bird Records Review Panel

For further information speak to SLSN executive members.

Chimney Swift Bird Survey- South Sutton: Update

The Thursday June 23 evening field survey for Chimney Swifts in this area where we have had historical Chimney Swifts was successful. We have confirmed a considerably sized community population in primarily at this point South-west Sutton. As members will recall evidence for this breeding bird previously confirmed in this area by SLSN birding members in fieldwork for the Atlas of Ontario Breeding Birds, 2001-2005. Significant new subdivision development is proposed in this part of Sutton, particularly the proposed Ainslie Hill development, so there is real concern about impacts on this Ontario endangered species.

Historically, there has been a swift decline of Chimney Swifts which once nested and roosted in large, hollow trees found in old-growth forests throughout eastern North America. As early European settlers arrived, forest management techniques reduced the availability of these large hollow trees and swifts adapted to using chimneys in houses, churches, schools and industrial buildings. However, as these buildings age and modern heating methods replace wood and coal burning fireplaces, many chimneys are being capped, steel-lined, or demolished altogether, and large old tree cavities are gone. According to government and N.G.O. researchers the resulting loss of both natural and man-made habitat has contributed to a 95% decline in the Chimney Swift population in Canada over the last 40 years. The Chimney Swift was listed as nationally threatened under the federal Species at Risk Act in 2007 and provincially under the Endangered Species Act, 2007 in 2009.

Our SLSN October 12th outing will be a rigorous field survey in the area to locate potential nesting and roosting habitat.

Paul Harpley

Greenbelt in our Area

We continue to advocate for significant improvements through the current Provincial review of the Greenbelt to ensure the maximization of natural heritage habitat for wildlife and countryside agricultural landscapes providing important core and corridor areas in South Lake Simcoe. The shrinking of the Pefferlaw Secondary Plan Area (Developable Area) to allow increasing the protected Countryside area of the Greenbelt will accomplish our goal. These lands in the Greenbelt Countryside designation of the Greenbelt Plan will ensure the highest natural and agricultural area protection possible in Ontario today. The Town of Georgina had a consultant review the current Pefferlaw Secondary Plan (Developable Area) in this regard, and recommended shrinking it by almost 60%, and Town of Georgina unanimously approving a recommendation for this in 2015. Our most important contribution to conservation at this time is to continue to strongly encourage the Town of Georgina, the Region of York and the Province of Ontario to act on this recommendation now! That is, to formally make the necessary changes to the Pefferlaw Secondary Plan (shrinking it 60%) and formally incorporating this change in the new Greenbelt Plan. Town council have recently re-confirmed this recommendation, but there is no guarantee it will be acted upon at the Region or the Province, and to my knowledge it has still not been done. **What would be important is for Georgina Council to take additional leadership measures and actively advocate and lobby for their own recommendation at the Region and Province now. I have advocated this on behalf of SLSN and the general community since months ago when the Draft Greenbelt Plan was released. SLSN members, please contact local councillors, Regional councillors and your local M.P. and advise them to act to ensure this change happens now at Pefferlaw, when the province is trying to grow the Greenbelt in their current Review.**

Also, significant in the current Draft Provincial Greenbelt Plan, now out for comment, is the new **Urban River Valley designation**. It is important the inclusion of the Greenbelt into the urban river areas of **Keswick, Sutton/Jackson's Point and Pefferlaw** must be a part of the new Greenbelt in 2016, same as rivers draining south off the Oak Ridges Moraine into communities in the south in Toronto and area (eg. Rouge, Humber etc.). This is not reflected in the current Provincial Draft Greenbelt Plan.

Clear **River Valley Connections** at these urban locations for the **Maskinonge, Black and Pefferlaw Rivers**, important rivers draining north off the Oak Ridges Moraine into sensitive Lake Simcoe, are not designated but they need to be. Our insistence on this has not been acted on by the Town of Georgina to my knowledge. At a Georgina Council meeting some time ago after my presentation on the matter, and our SLSN comprehensive Greenbelt comment document, an area Councillor requested an investigation of the Urban River Valley Greenbelt designation and Reporting back from Town Planning staff. I have requested a copy of this investigation and Report from the Councillor for our review. Landuse planning related to the Greenbelt will evolve in the coming months and years important to natural and cultural area conservation. Wildlife habitat enhancement and restoration legislation in these designated "**Urban River Valley**" areas will necessarily be further developed. At this point it is government owned properties but already there is movement afoot to include provisions on private properties. Undoubtedly, government and private grants and other financial resources and other benefits will develop for these formally designated areas. We should have this designation here in our three urban communities and rivers in Georgina. Time is running out as the Review of the Greenbelt is coming to a close. There remains a lot of work and leadership to do here by the Town, and I have recently communicated this to my Ward Councillor. I will be working at the Provincial and Regional level in the coming weeks on behalf of our organization to try and expedite these matters as best as I can.

Our most important contribution to conservation of our urban water areas at this time is to continue to encourage the Town, the Region of York and the Province of Ontario in the strongest ways possible, to act on these recommendations of formal incorporation into the Greenbelt now! SLSN members, please contact local councillors, Regional councillors and your local M.P. and advise them to act to ensure these change happen. It is imperative action happens now as the province is trying to grow and strengthen the Greenbelt in their current Review. At this point the Draft Provincial Greenbelt Plan does not incorporate these important conservation actions.

Time is running out.

Paul Harpley

Below are some important points on the Greenbelt Review process from a provincial perspective from Environmental Defence below.

Help Grow the Greenbelt – from Environmental Defence

Environmental Defence 2016-07-13

Join us in protecting our region's abundant clean water supplies forever. Act now – by asking the province to grow the Greenbelt.

We only have until September 30, 2016 when consultations end.

What's Possible:

The Ontario government wants to grow the Greenbelt, which protects our farmlands, forests, wetlands and abundant clean water supplies. Nine out of 10 residents agree. The government is hosting one last round of public consultations on their proposed changes to the Greenbelt and the Growth Plan – which encourages compact growth, good transit, and designing complete communities where everyone can live.

With your support, we can help protect water supplies forever in places like Simcoe, Waterloo Region, Wellington, Guelph, Brant and Northumberland – places that were left out when the Greenbelt was created in 2005.

By signing this letter, you will send a strong message to the elected representatives responsible for the Greenbelt that you want them to:

- Grow the Greenbelt to protect vulnerable water supplies and natural areas;
- Support a thriving rural economy, including the \$11 billion agriculture and food sector that provides 110,000 jobs for Ontario;
- Stop sprawling our cities outwards, and instead create livable, walkable communities with a greater range of housing options.

Please sign and share this letter. Consider adding your own story; this will make your message more powerful.

Take a few moments and **See and sign the petition.**

Website: http://www.growourgreenbelt.ca/action?recruiter_id=44

Dear Minister Mauro:

The provincial Growth Plan and three land conservation plans (Niagara Escarpment Plan, Oak Ridges Moraine Conservation Plan and Greenbelt Plan) are designed to work together to help us protect what is most valuable and grow smarter in the Greater Golden Horseshoe (GGH) region.

Your proposed amendments to these plans are a positive improvement over the existing levels of protection for sensitive natural systems and farmland and significantly strengthen land-use planning policies. I encourage you to move forward to adopt these changes as soon as possible.

I urge you to protect our natural heritage systems, our clean water sources, reduce climate change impacts, support the agriculture economy, reduce traffic congestion and build smart, walkable, mixed use transit-friendly communities. We won't have the resilient communities we need without clear provincial leadership.

Please act to:

1. **Grow the Greenbelt:** Expand the Greenbelt now to include a comprehensive protected bluebelt of vulnerable water supplies (including key headwater features, ground water recharge areas, surface water features and urban river valleys) as well as additional prime farmland and sensitive natural heritage systems. Ensure complete mapping of these systems is quickly undertaken for the entire Greater Golden Horseshoe (GGH) with input from ENGO's and local communities. The announcement to add 21 urban river valleys and their coastal wetlands is a welcome step. Now is the time to move forward on adding these and other valuable lands to the Greenbelt's protective fold.
2. **Strengthen the Greenbelt:** Uplift and clarify Greenbelt Plan policies across all four plans, seeking the highest level of protection for agricultural land and natural heritage systems. Put in place new rules to restrict infrastructure in the Greenbelt including highways, energy generation and transmission, sewage pipes and fuel lines and address fill issues across the Greenbelt. Ensure watershed planning comes first before development plans and that there is strong provincial guidance.
3. **Stop Urban Sprawl in its Tracks:** Protect the Greenbelt for the long-term by holding the line on current municipal urban boundaries in the GGH and freezing them for 10 years. Land swaps or removal of lands from the Greenbelt should not be considered as there is more than enough land set aside by municipalities to accommodate forecasted population growth for the GGH beyond 2031. All new growth within existing urban boundaries must come under the new rules. We don't need to keep sprawling over our farmland and natural areas.
4. **Protect and Support Ontario's Agricultural Sector:** Further protect productive farmland and recognize the diverse activities needed to support the agricultural economy across the GGH by mapping the agricultural system, and adding significant farmland that's at-risk to the Greenbelt's protected area. Support farming communities with flexible on-farm zoning, permitted uses, policy guidance and other incentives.
5. **Create Livable Communities:** Support efficient development in urban growth centres by setting mandatory requirements for building denser cities and aligning growth with existing public transit, water, road and sewer capacity. Settlement areas, towns and villages in the GGH that lack the requisite infrastructure required for complete communities should not be included in the lands needs assessment or be included in the allocation of growth. End municipal exemptions for intensification targets in urban growth centres. Improve the flow of people and goods across the region by prioritizing investment in public transit, rail, and existing highways over building new highways so that the transportation network better serves and reinforces smart growth rather than sprawl.
6. **Reinforce Smart Growth:** Better align the growth plan with the Big Move transit plan objectives, permitting higher densities within 2 km of transit hubs in urban growth centres and provide multiple ways to access transit hubs, including cycling, walking and driving. Prioritize and tie investment in public transit with relieving congestion and servicing existing urban areas that meet intensification requirements.
7. **Make Climate Action a Priority:** The Greenbelt and Growth Plans are key to climate action success in Ontario. Address climate change by dedicating revenues from cap-and-trade to programs that restore and enhance the Greenbelt's natural landscape and further reduce emissions. Direct funds towards enhancement and securement of the GGH's natural heritage systems, at-risk farmland, public transit, incentivize energy efficient buildings and living green infrastructure.
8. **Set-up the Greenbelt and Growth Plan for Long-Term Success:** The success of these plans rests with effective implementation. The province must lead the oversight, research, monitoring, reporting to effectively protect the Greenbelt and guide growth, and prepare for the next review. An empowered oversight body will be required with the mandate and expertise and adequate resources to assist and guide municipal partners.

Energy efficiency can reduce Ontario's electricity demand by almost one-third

2016-08-10

According to a new report prepared for Ontario's Independent Electricity System Operator (IESO), **energy efficiency investments can reduce Ontario's electricity demand by 31% by 2035.**

On the other hand, the report notes that if the IESO's conservation budget remains at its status quo level, Ontario's electricity demand will fall by only 12%.

Any way you cut it, improving energy efficiency by paying a fair price for conservation measures, creating opportunities for a wide variety of organizations to lead efficiency efforts and helping consumers maximize their savings makes economic and environmental sense.

Please contact Ontario's new Energy Minister Glenn Thibeault and ask him to direct the IESO to develop a strategy to obtain all the electricity savings that can keep our lights on at a lower cost than re-building the Darlington and Bruce Nuclear Stations.

For more information, please download our new fact sheet: Reducing electricity demand by 31% and saving billions.

Thank you.

Angela Bischoff
Outreach Director



The Federal Government needs to ban Microbeads

Last week, the United Kingdom announced it will ban plastic microbeads in personal care products and cosmetics by the end of next year. Meanwhile, the Canadian government hasn't put forward any plans yet to ban the harmful plastic bits. That's why I'm asking you to speak out today.

Thanks to thousands of Canadians taking action, microbeads were declared "toxic" earlier this year. But they are still legal and found in many products.

To protect our waterways and wildlife, Canada needs to rapidly ban the use of plastic microbeads in all personal care products and cosmetics. Every day, millions of tiny microbeads end up in our lakes and rivers, adding to the microplastic pollution that threatens the lives of fish and birds. The recent bans in the U.K. and U.S. show us that it doesn't have to be this way.

Maggie MacDonald
Toxics Program Manager



FOR IMMEDIATE RELEASE
August 24, 2016

SHADES OF HOPE SHOWING 'THE MESSENGER'

Educational entertainment and fundraiser in support of local charity, **Shades of Hope**

York Region (ON) – Local charity **Shades of Hope (SOH)** is showing "**The Messenger**", an award-winning documentary by Toronto director Su Rynard on Sunday, September 18, 2016 to raise funds and build awareness of its wildlife preservation services.

LIMITED SEATING! There will be one showing of **THE MESSENGER** at The Gem Theatre in Keswick, Sunday, September 18th 2016 starting at 4:30 pm. Tickets are \$10 and are available in advance through the **SOH** website: www.shadesofhope.ca/shop.html or at The Gem Theatre, 11 Church St, Georgina ON. There will be an accompanying Silent Auction and Draw.

100% of proceeds from the showing will support **SOH** efforts to medically assess, treat, rehabilitate & nurture injured and orphaned native wildlife with the goal of releasing healthy animals back into their natural habitats. **Shades of Hope** is also dedicated to raising awareness of the need for preservation of endangered and threatened species in Ontario.

"The costs involved in raising/rehabilitating wildlife are substantial," notes Gail Lenters, **SOH** Founder and Board Member. "**Shades of Hope** has cared for 2,300 animals this year and we anticipate reaching 3000 by year's end. With no government support, we rely 100% on the generosity of donors to raise the funds needed to provide this free-of-charge support. We need your help to save wild lives."

There are many reasons that an animal might arrive at **SOH**. Many birds and small mammals suffer from cat attacks and collisions with windows and vehicles. They also care for orphaned animals whose parents and or nests have been destroyed. **SOH** treats head traumas, spinal traumas, fractures of all kinds, starvation, illness (viruses, parasites, and infections), and injuries to eyes, ears and feet. **SOH** raises MANY wild orphans which need nutrition and time to master skills needed to survive back in the wilderness

There is a vast array of animals **SOH** has cared for from the smallest baby opossum a few days old to a bear. There are song birds, ducks & geese, swans, gulls, crows, hawks, falcons, owls & turkeys. Skunks, beavers, squirrels, porcupines, foxes and others that are in the wilds of Ontario have come to them needing assistance.

Expenses that **SOH** covers include: Medications (\$1,100/month), Hospital supplies (\$900/month), Food (\$1,500/month) and Worms/Bugs (\$300/month). The average songbird will stay 4 months and each bird (on average) will cost \$160.00 in food. A smaller mammal, like a chipmunk or bunny during its stay will consume up to \$200.00 in food.

The Documentary ~ **THE MESSENGER**

*Visually thrilling eco-documentary unravels the mystery behind the world's vanishing songbird population and questions what this means for humankind's own future. **THE MESSENGER** brings us face-to-face with the beauty of these airborne music-makers and with the remarkable variety of human-made perils that they face: the destruction of our forests, our lethal architecture, predatory pets, human gourmets, industrial agriculture methods and the alarming use of pesticides. All of which are causing the disappearance of songbirds at a disquieting pace. At the same time, **THE MESSENGER** vividly mixes its elegiac message with hopeful notes and unique glances into the influence of songbirds on our own expressions of the soul.*

– 30 –

Shades of Hope is a Registered Charity

Contact: Gail Lenters, Founder and Board Member

Tel: 705.437.4654 **Email:** info@shadesofhope.ca **Website:** www.shadesofhope.ca

Address: P.O. Box 87 Pepperlaw, Ontario, L0E 1N0

About the Wind Energy Bird and Bat Monitoring Database

Bird Studies Canada, 2016-07-22

The Wind Energy Bird and Bat Monitoring Database is a joint initiative of the Canadian Wind Energy Association (CANWEA), Canadian Wildlife Service (CWS, Environment Canada), Bird Studies Canada (BSC) and the Ontario Ministry of Natural Resources (OMNR). The goals of this project are to facilitate improved understanding of the impacts of wind turbines on birds and bats, allow for greater consistency in assessment of wind power impacts across the country, and lead to future improvements in the Environmental Assessment and approval processes. The database is designed to allow individual industry proponents (and individuals or consultants working on their behalf) to enter field data derived from bird and bat population monitoring projects in a confidential environment, while providing the ability to analyse the data and create summaries for the public on the website. Results from such analyses will be used to inform future wind

power developments, and to improve the EA and approval processes, particularly by streamlining data collection requirements.

Data submitted on this site remains the property of the person or organizations submitting them, and will be treated confidentially. The data from this database can only be accessed by authorized users, which include those collecting data on birds and bats using the recommended guidelines (for the purpose of accessing their own data only) and selected representatives from CANWEA, CWS and OMNR. Any other user (including Bird Studies Canada, except for the purpose of maintaining this site) who would like to access or request data must fill in a data request form, which will be approved by CANWEA, CWS and OMNR.

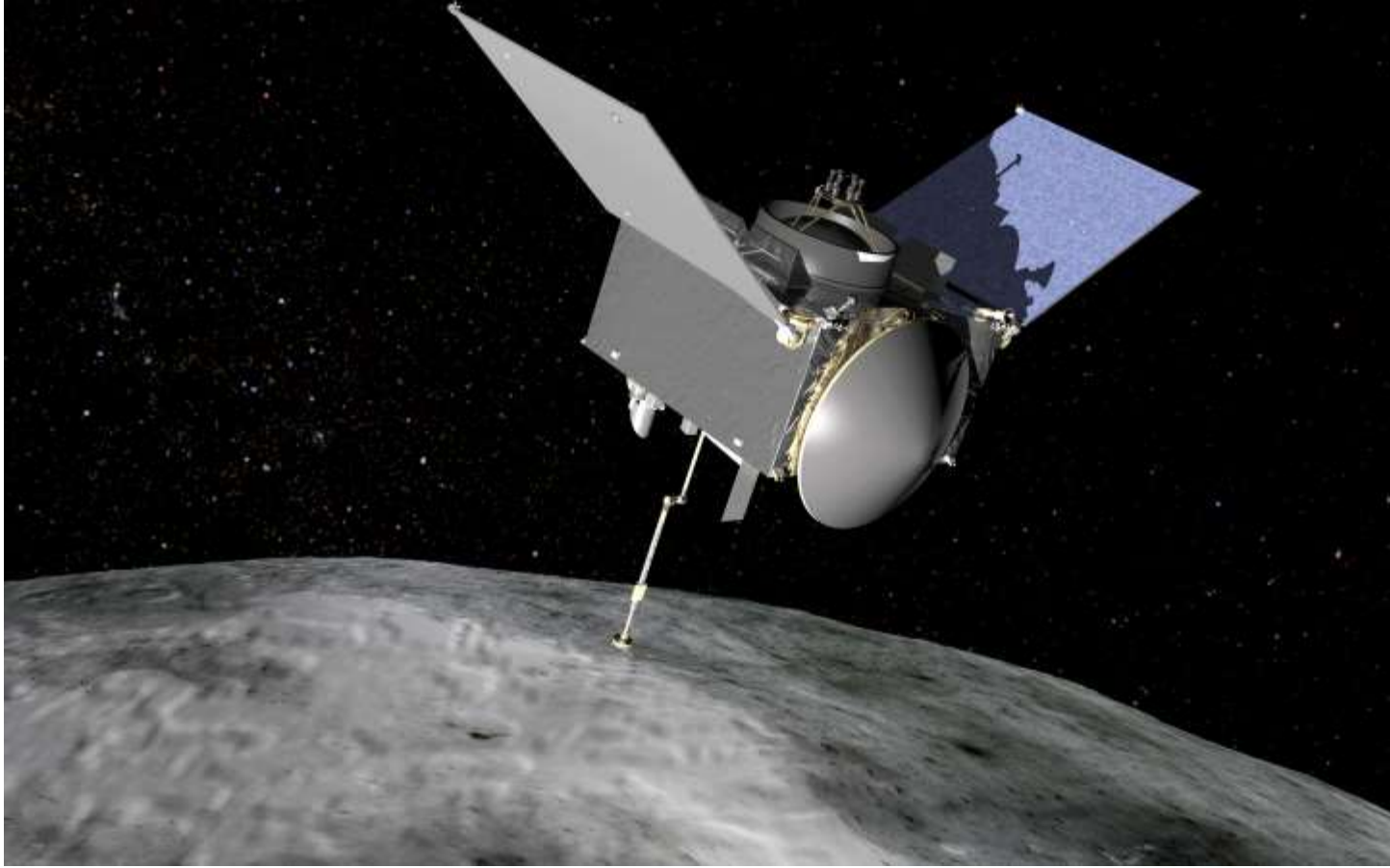
As the site develops, proponents will be encouraged to make their data available for the purpose of generating data summaries on this site, including for example summary tables, maps and figures, with the objective of informing the public about the potential impact of wind energy activities.

At this time, proponents wishing to submit data into this database must be approved by a CANWEA representative.

Naturalist Astronomy - See asteroid mission launch September 8

By Deborah Byrd and Eleanor Imster in **SPACE** | **September 7, 2016**

OSIRIS-REx, the first sample return mission to an asteroid, launches September 8 at 7:05 p.m. EDT (2305 UTC). Watch the launch on NASA TV.



Artist's concept of OSIRIS-REx mission to asteroid Bennu. Image via [NASA](#).

The first U.S. mission to travel to an asteroid, retrieve samples and return them to Earth is targeted for launch this Thursday (September 8, 2016). The OSIRIS-REx mission (Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer) is scheduled to launch from Cape Canaveral Air Force Station in Florida at 7:05 p.m. EDT (2305 UTC). You can watch the launch on NASA TV. Coverage begins at 5:30 p.m. EDT (2130 UTC) [Translate to your time zone](#)



The OSIRIS-REx spacecraft, enclosed in a payload fairing, is lifted Aug. 29 at Space Launch Complex 41 at Cape Canaveral Air Force Station in Florida. The United Launch Alliance Atlas V rocket that is to lift OSIRIS-REx into space was stacked at SLC-41 so the spacecraft and fairing could be hoisted up and bolted to the rocket. Image via [NASA/Dimitri Gerondidakis](#)

OSIRIS-REx is a seven-year sample return mission to an asteroid called Bennu. Bennu is an asteroid of the near-Earth variety. Its orbit brings it near our planet occasionally, for good or ill (good because asteroids contain possible useful resources, ill because earthly astronomers have come to realize that asteroids still can and do sometimes collide with Earth). NASA said the OSIRIS-REx mission will:

... help scientists investigate how planets formed and how life began, as well as improve our understanding of asteroids that could impact Earth.

OSIRIS-REx will launch aboard an Atlas V 411 rocket and reach its asteroid target in 2018. It'll survey Bennu to characterize the asteroid and locate the most promising sample sites.

Then the mission will collect between 2 and 70 ounces (about 60 to 2,000 grams) of surface material with its robotic arm and return the sample to Earth via a detachable capsule in 2023.

One of the most important instruments that'll travel aboard this mission, with respect to the sample return, is OLA (the OSIRIS-REx Laser Altimeter). Contributed by Canadian Space Agency, it's a [laser ranging](#) instrument that'll be used to measure the precise distance between the spacecraft and Bennu's surface. That's key to enabling the mission's robotic arm touch down on the asteroid correctly, in order to collect a sample. The video below has more ...

OSIRIS-REx Principal Investigator Dante Lauretta of the University of Arizona, Tucson said:

The launch of OSIRIS-REx is the beginning a seven-year journey to return pristine samples from asteroid Bennu. The team has built an amazing spacecraft, and we are well-equipped to investigate Bennu and return with our scientific treasure.

For images, video, and more information, visit:

<http://www.nasa.gov/osiris-rex>

and

<http://www.asteroidmission.org>

[Read more from NASA about OSIRIS-REx.](#)

By the way, a private company called Deep Space Industries of Mountain View California also has plans to launch an asteroid mission, with the long-term ambitious goal of mining asteroids for resources. Deep Space Industries said on August 9, 2016 that it plans to launch a small satellite by the end of the decade to survey another near-Earth asteroid. That mission is called Prospector-1, [and you can read about it here](#), or [here](#).

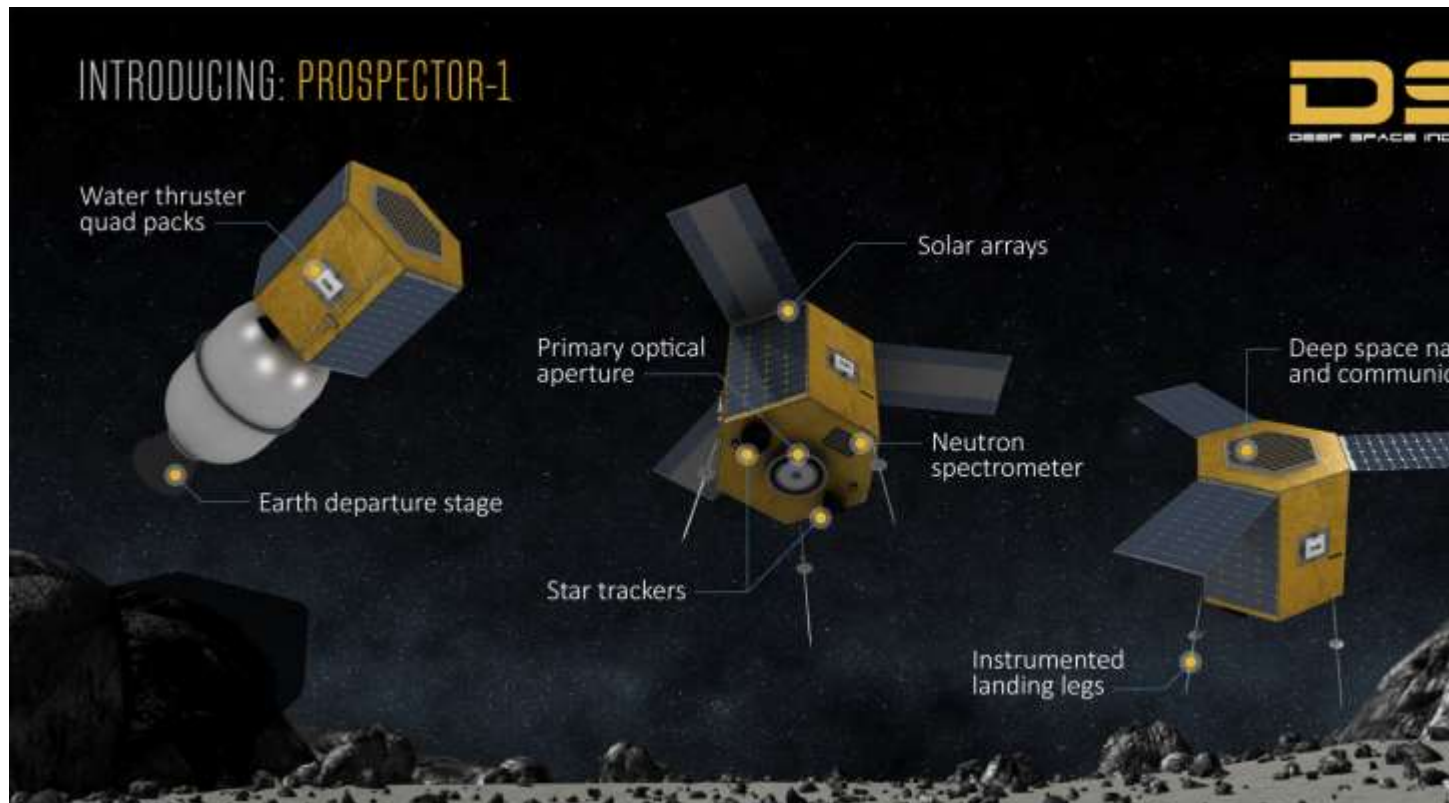


Image via [Deep Space Industries](#).

Bottom line: On September 8, 2016, NASA's OSIRIS-REx mission is scheduled to launch from Cape Canaveral, Florida. The mission plan is to visit near-Earth asteroid Bennu and bring a sample of the asteroid back to Earth.

Deborah Byrd

Created the EarthSky

International Wildlife News

Bornean Orangutans and whale sharks are near extinction due to humans, conservationists warn

'As orangutans are hunted and pushed out of their habitats, losses to this slow-breeding species are enormous and will be extremely difficult to reverse,' says Erik Meijaard

- Matt Payton
- Saturday 9 July 2016



Borneo Orangutan Survival Foundation carry a tranquilized orangutan as they conduct a rescue and release operation for orangutans trapped in a swath of jungle *AP*

Orangutans and whale sharks are on the brink of extinction in Borneo due to human pressures, conservationists have warned.

The International Union for the Conservation of Nature (IUCN) said the number of Bornean orangutans has dropped to 100,000 from 288,500 in 1973. The population is expected to further shrink to 47,000 by 2025, ABC News reports.

Erik Meijaard, the IUCN assessor of the species, said: “This is the first time in many decades that we have a clear understanding of Bornean orangutan population trends.

“As orangutans are hunted and pushed out of their habitats, losses to this slow-breeding species are enormous and will be extremely difficult to reverse.”

In addition to loss of habitat, surveys have found 2,000 to 3,000 orangutans have been killed by hunters or villagers each year over the past four decades.



A whale shark, nearly six meters (20 feet) long, swims near the surface of the plankton-rich water (Getty Images)

Joining the great ape on the IUCN's red list of endangered species is the whale shark, the largest fish in the world.

The slow-moving shark species has seen its numbers halved over the last 75 years, due to increased use of its meat and fins for soups in parts of Asia.

They have also been caught accidentally by trawlers fishing for tuna or killed by ship propellers.

Another species added to the red list is the winghead shark, a member of the hammerhead shark family.