

REPORT

AWARE

DEC 2024 / JAN 2025

PHANTOM OF THE NORTH: THE GREAT GRAY OWL

By Peter Hudson

CONTENTS

EDITOR'S DEN

Welcome to PT Aware
By Raghul Patteri

04

FOUNDERS' NOTE

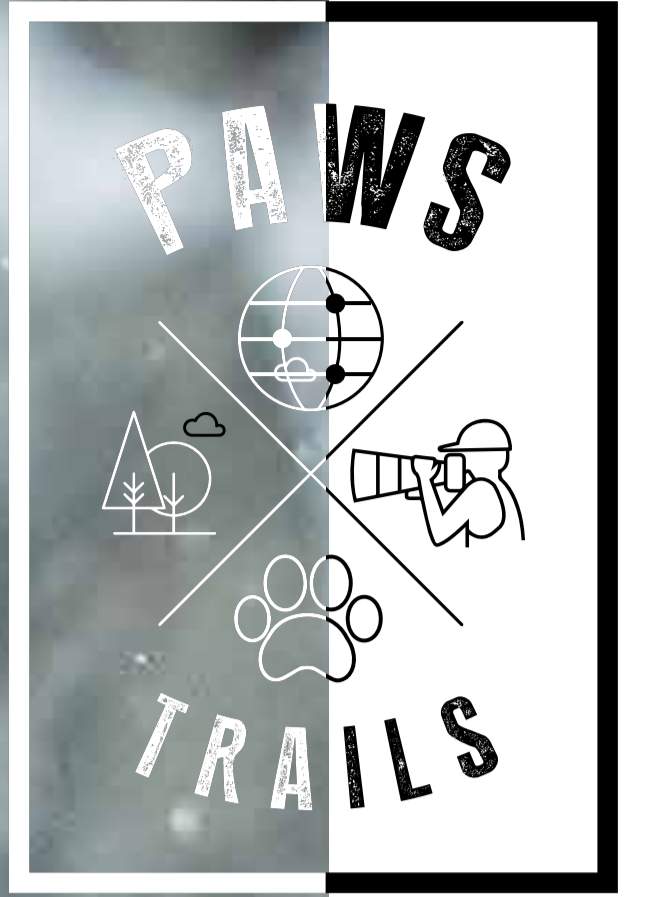
By Hermis Haridas &
Nisha Purushothaman

07

THE STORY

Phantom of the North:
The Great Gray Owl
By Peter Hudson

08



Publisher: Paws Trails Explorers **Editor:** Raghul Patteri **Conservation Director:** Peter Hudson
Content Director: Nisha Purushothaman, **Director Photography:** Hermis Haridas, **Design desk:** Nithya Purushothaman
Copyright © Paws Trails Aware

Photo By:
©Harshad Karkera



Raghul Patteri
Editor

This month we explore a bird which is not only enchanting and enigmatic but also exhibits a diverse set of adaptations that have specifically evolved to locate and capture voles in deep snow. The Phantom of the North is a truly remarkable bird and we hope you enjoy both the photographs and article by Peter Hudson.

Of course such an enigmatic and remarkable bird attracts the attention of photographers, many of whom seek to capture stunning images of the bird in flight and capturing its prey. But here we fall into ethical dilemmas of wildlife photography. We should never disturb the behavior of wildlife or do anything knowingly to threaten their survival and yet we want to watch and photograph the birds.

Some photographers disturb wildlife more than others do; where should we draw the line and say what is ethical? This is more worrying with the Great Gray Owl where some photographers have been using live captive bred mice tied to fishing line to attract the owls and so obtain some special images. We should all think hard about the issue and draw clear lines of what is ethical and what is not.

Our next edition will focus on the Impala, please be ready with your best photographs.



Photo by: Kamal Varma

EDITOR'S DEN

FOUNDERS' NOTE

Welcome to the latest edition of PT Aware.

Welcome to the 32nd edition of Paws Trails Aware —a space where wildlife photography meets storytelling, awareness, and conservation. Each edition is a step toward our mission of celebrating the beauty of the natural world while shedding light on the challenges it faces.

This time, we delve into the mysterious realm of the Great Gray Owl, a symbol of elegance and survival. With its piercing yellow eyes, expansive wingspan, and hauntingly silent flight, the Great Gray Owl is a marvel of adaptation. Found across the northern forests, it thrives in some of the harshest climates, yet its existence is increasingly vulnerable to habitat loss and environmental changes.

In this edition, we bring you stunning imagery, expert insights, and heart-stirring stories that capture the essence of this incredible bird. Through these pages, we aim to inspire a deeper appreciation for the Great Gray Owl and its vital role in the ecosystem.

As always, our goal is to spark a connection between you and the wild, encouraging not just admiration but action. Thank you for being part of this journey and for supporting the vision that every image, every story, can make a difference.

Sincerely,

**Hermis Haridas &
Nisha Purushothaman**

Founders - Paws Trails Explorers





Canon
IMAGING PARTNER

Peter Hudson is a scientist, photographer, and conservationist. He undertook his first scientific expedition to Africa at the age of 21 and has been a regular visitor ever since. Passionate about nature, he manages his own 36-hectare nature reserve in Pennsylvania which is home to bears, bobcats, and other animals.

In his professional career, Peter is the Willaman Professor of Biology at Penn State University. The focus of his research has been the infectious diseases of wildlife and in particular how new diseases emerge. For the past 11 years, he has been working on how and why viruses move from bats to humans in an attempt to predict when viral spillover occurs. He has also been studying the wolves in Yellowstone, tortoises in the Mojave Desert, and bighorn sheep in Idaho.

Peter is the Conservation Director at Paws Trails and uses his skills as a scientist and educator to increase awareness about conservation issues. He is supported by two interns at Paws Trails: Hayden Kissel and Shreya Menon. He is also heavily involved with the Random Good Foundation that undertakes storytelling for social change. He is an adjunct Professor at The Nelson Mandela African Institute of Science and Technology based in Arusha, Tanzania, and a Fellow of the Royal Society.

THE STORY

PHANTOM OF THE NORTH: THE GREAT GRAY OWL

By Peter Hudson (Conservation Director, Paws Trails)

Images by: Harshad Karkera, Kamal Varma
and Nisha purushothaman





Photo by: Harshad Karkera

Like many naturalists and photographers, I find owls special and appealing. They are ethereal and beautiful and exhibit some astonishing adaptations that allow them to hunt at night and in the twilight. Photographing them when light is limiting is never easy but then that is the challenge we need to rise to, you must be creative and find the right subject in the right context and use the lack of light to capture an image that reflects the characteristics and beauty of the owl. Barn owls and Short-eared owls have always intrigued me with their moth-like flight and I crave time with snowy owls, but over and above these owls there is something very special: the Great Gray Owl (*Strix nebulosa*). This is an elusive owl that seems to blend into its surroundings in the snowy forests of the northern forests and then emerges flying like a ghost. They have large facial disks and piercing yellow eyes and glide silently along the edge of the forest, appearing as if they were from another world. Hence, they are often called the “Great Gray Ghost” or the “Phantom of the North”.

Great Gray Owls live in the dense boreal forests of North America and those that spread across Eurasia, where they inhabit the mature forest and feed almost exclusively on rodents, particularly voles that can be found in the grassy forest openings. They breed in the abandoned nest of Goshawks or Ravens and start incubation as soon as the first egg has been

laid and this results in the young hatching asynchronously and giving an age hierarchy within the nest. The survival of the offspring is dependent on the availability of voles – in years when voles reach a cyclic peak they may fledge as many as 5 young while in poor years they may fail totally. In the strict sense of the word these owls are not migratory but are nomadic and during winters, when the vole populations have crashed they undertake southward irruptions in search of prey. While they are primarily nocturnal, they will hunt during the daylight when they are hungry and this combination of the southward movement, coupled with feeding in the day provides opportunities for photographers to capture some truly spectacular images of birds they rarely see.

Remarkable Hunting Adaptations

Much of the Great Gray’s hunting is done when the snow is on the ground and most of the rodents are under fairly deep snow; they can’t even see the rodents and must locate the voles by hearing them running along their subnivean (under-snow) tunnels. Indeed, Great Gray Owls have been recorded responding to vole sounds at distances of 100 feet (30m) diving through 18 inch (45cm) encrusted snow that is hard enough to support a 175lb (80kg) person. The remarkable large facial discs act like a satellite dish to capture low-frequency sound. These are



Photo by: Nisha Purushothaman



Photo by: Kamal Varma

the wavelengths that are best transmitted through the snow where the owls use even the faintest of sounds to guide them to their prey. Like many owls, the Great Gray also has asymmetrical ear openings which help it to pinpoint the prey accurately.

They also have adaptations on its wing feathers to reduce the sound of turbulence interfering with their hunt. First the leading-edge of the wing feathers has a distinctive comb which extends out from the front edge of the wing and second a trailing edge fringe which is a wispy velvet margin that make the flight almost silent and “ghost-like”

What is particularly interesting is that snow refracts the sound of the prey which means the owl can't easily locate the vole because the sound “bends” as it passes from snow to ice to air and this this refraction creates an ‘acoustic mirage’ and the sound direction received by the bird is not where the vole really is. However, the hunting strategy of the owl defeats this mirage because when the owls hover directly over their prey, there is little refraction, and from this position the owl can pinpoint the voles location accurately.

So not only have they developed the most remarkable ability to hear the specific sounds that transmit through snow they have also developed extreme wing morphologies and the ability to hover right above their



Photo by: Nisha Purushothaman

prey to find the location and then to descend crashing through the snow with their long legs and grab their meal.

The Ethical debate about photographing Owls

While the hunting behavior of Great Gray Owls presents compelling photographic opportunities, some photographers have gone further and use live mice tethered to fishing line to attract owls for photography. While this technique can produce dramatic hunting images, it also raises several a series of ethical questions we as ethical photographers must address. Should you be using a live animal to bait another, just for your own gratification? Does regular baiting alter the natural hunting patterns and create dependency by owls on artificial food sources? Do the captive mice pass infections to the owls which they may suffer from? We know these forest-living owls are not used to seeing cars and vehicle accidents are a frequent cause of owl mortality so does the association between cars and food lead to increased mortality? Does attracting owls to specific locations increase their energy expenditure and stress levels, during the critical winter months?

Without question as wildlife photographers and naturalists we should not want to disrupt the natural behavior of any animal, let alone have a detrimental effect on

the animals and result in increased mortality. On the one hand any approach which results in a gathering of photographers, may have some impact on the animals and yet on the other hand, we know that paying for photographic opportunities provides important income for caring for the animals we photograph.

Responsible wildlife photographers are adopting alternative methods to document Great Gray Owl hunting behavior. Part of what we try to achieve in Paws Trails is to encourage you to invest time in research and to understand the natural behaviour and hunting patterns of animals. We encourage the use of long lenses to maintain distance and focus on natural hunting events rather than staged scenarios or artificial situations. We feel you should develop an awareness of the animals and be cognizant of the animals response to you. After all there is nothing more rewarding than spending quiet time with an animal recording images and then withdrawing knowing that the animal was not disturbed directly or indirectly by your presence.

Conclusion

The Great Gray Owl's hunting adaptations represent one of nature's most sophisticated examples of evolutionary refinement. From their extraordinary auditory capabilities to their specialized flight feathers and



Photo by: Harshad Karkera

hunting techniques, these birds demonstrate the remarkable results of millions of years of adaptation to their harsh environment.

As wildlife photographers and

naturalists, we bear the responsibility of documenting these remarkable creatures and making others aware of their beauty and importance. By adopting ethical photography

approaches and sharing accurate information about natural behaviors, we can contribute to the scientific understanding and conservation of these magnificent predators.

The challenge for modern wildlife photographers lies in finding the balance between capturing compelling images and maintaining the integrity of natural behaviors.



Photo by: Kamal Varma





Photo by: Harshad Karkera





Photo by: Harshad Karkera



Photo by: Harshad Karkera



Photo by: Harshad Karkera



Photo by: Harshad Karkera



Photo by: Harshad Karkera





Photo by: Harshad Karkera





Photo by: Harshad Karkera



Photo by: Nisha Purushothaman



Photo by: Nisha Purushothaman



Photo by: Nisha Purushothaman



Photo by: Nisha Purushothaman



Photo by: Nisha Purushothaman



Photo by: Nisha Purushothaman



Photo by: Nisha Purushothaman



Photo by: Nisha Purushothaman



P
AWARE
CONSERVATION & PHOTOGRAPHY

UPCOMING EDITION

IMPALA

