# WETLAND RESOURCES

REVIEWED 2023



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#### SPECIES AT RISK & LOCAL GOVERNEMENT



### **SPECIES & ECOSYSTEMS AT RISK**

<u>Species and ecosystems at risk - Province of British Columbia</u> (<u>gov.bc.ca</u>)

This website provides you with newly updated information regarding species and ecosystems at risk. Not only does it provide detailed information on the whereabouts of these species and ecosystems but also other important topics such as legislation, recovery planning, public engagement etc.



#### SOUTH COAST CONSERVATION PROGRAM SARNET

<u>Search SARnet | Species at Risk, South Coast British Columbia,</u> <u>Canada (sccp.ca)</u>

The Species at Risk Network for the South Coast of BC is a data hub designed to provide up to date information and improve communication and collaboration between researchers, practitioners and the public around species at risk conservation. Users can search the database using various search terms and receive records via a Google map display. Contributors can add SARnet records including project name, date, description, and keywords. This enables all users to work around a particular species that is occurring or has occurred in history.



### B.C. CONSERVATION DATA CENTRE (BC CDC)

B.C. Conservation Data Centre - Province of British Columbia (gov.bc.ca)

If you have observed a species at risk, you can find the information to report that sighting to BC CDC. All reportable sightings and historical sightings of species at risk are generated into a map format. This mapping tool shows the whole of BC but can be zoomed in to more specific areas in question if needed. There are coloured circles that represent different species. Some information will be considered "mased" or sensitive, and details will be excluded.





#### FROG WATCH BC

Frogwatching - Province of British Columbia (gov.bc.ca)

The websites allow you to become a citizen scientist and learn how to identify, monitor and report on amphibians in your area. The Community Mapping Network has a link with Frog Watch BC in which you can view a map of an area and what species are in that area.



#### SOCIETY FOR NOTHWESTERN VERTEBRATE BIOLOGY

<u>The Society for Northwestern Vertebrate Biology - Dedicated to the study of vertebrate ecology in the Pacific Northwest (thesnyb.org)</u>

The society strives to promote professional working relationships among ornithologists, herpetologists and ichthyologists. The website includes info on their publication, Northwestern Naturalist and the society's newsletter The Murreletter.

#### **LAND OWNERSHIP & USE**



#### FRONT COUNTER BC

<u>FrontCounter BC - Forests, Lands and Natural Resource Operations - Province of British Columbia (gov.bc.ca)</u>

This website allows you to download and add a Google Earth application tool that determines land ownership. It highlights landuse such as provincial parks, conservancy areas, protected areas etc. Highlights land ownership such as crown, private, or land tenure applications in place.





#### INTEGRATED LAND RESOURCE REGISTRY

<u>Integrated Land and Resource Registry (ILRR) Welcome To ILRR</u> (gov.bc.ca)

This website is a tool that is used to produce access to a legal description of the land.

#### MAPPING RESOURCE TOOL



### **COMMUNITY MAPPING SYSTEM**

Community Mapping Network (cmnbc.ca)

This websites allows you to open up a series of different maps such as Sensitive Habitat Inventory Mapping (SHIM), wildlife Trees (WiT's) Mapping, Regional Districts, Community Mappings, Frog Watch BC, Wetlands of BC (BCWF) etc...



#### I-MAP BC

<u>iMapBC - Province of British Columbia (gov.bc.ca)</u>

This interactive website allows you to map out many different features from topography, water well locations, forest, fish, and wildlife, base maps, administrative boundaries and much more.



#### **OTHER RESOURCES**



# THE BC WILDLIFE FEDERATION WETLANDS EDUCATION PROGRAM

<u>B.C. Wildlife Federation | Donate or Become a Member Today</u> (bcwf.bc.ca)

This website provides information on the different courses offered by the BCWF WEP program and how you can get involved. As a secondary website, the Website Education Program has "The Bog Blog" that is a hug for wetland conservation and stewardship initiatives across British Columbia.



#### THE BCWF BOG BLOG

BCWF Bog Blog

This website serves as an interactive tool for wetland stewards and initiatives so that others may see what is going on across the province. It can also serve as a learning tool for ideas on how to go about certain challenging issues and will connect wetland keepers and watershed groups and individuals to one another.



#### **BIODIVERSITY OF BC**

Biodiversity and Invasive Species (ubc.ca)

The website will link you to information about Ecological communities, flora and fauna. It also provides written reports and further information regarding biodiversity in BC.





# WETLANDS IN BC - A PRIMER FOR LCOAL GOVERNMETNS

Wetlands in British Columbia. A primer for Local Governments Summary AC (stewardship.foundation)

This document provides useful information for municipalities rationale to identify, value and conserve wetlands in BC. It provides specific details about jurisdictions are protecting their wetlands, and how. It is written in a manner that municipalities can extract bylaws ready to adopt for their own community.



### **GREEN BYLAWS TOOLKIT**

<u>The 3rd Edition of the Green Bylaws Toolkit 2021 - Stewardship Centre</u> <u>for BC (stewardshipcentrebc.ca)</u>

This website provides information on conserving sensitive ecosystems and green infrastructure. The appendixes of this resource manual also provides bylaws written in language that is readily adoptable by municipal councils.



# WETLANDS OF BRITISH COLUMBIA - A GUIDE TO IDENTIFICATION

Wetlands 1-5 (gov.bc.ca)

This document provides useful information for municipalities rationale to identify, value and conserve wetlands in BC. It provides specific details about jurisdictions are protecting their wetlands, and how. It is written in a manner that municipalities can extract bylaws ready to adopt for their own community.





# MINISTRY OF ENVIRONMENT - ENVIRONMENTAL STEWARDSHIP DIVISION WETLAND WAYS

Develop with Care: (gov.bc.ca)

This document provides the interim guidelines to protecting and conserving wetlands in BC. It is divided into sections that are downloadable as pdf, and will serve to help identify the values of wetlands in your community and how to protect them.



#### FISH & FISH HABITAT DATA & INFORMATION

<u>Fish & Fish Habitat Data & Information - Province of British Columbia</u> (gov.bc.ca)

This website allows you to learn about potential and historical fish in a variety of geological areas. The FISS tool is the database center. Here you can determine the tributary codes for streams, fish presence, watershed codes and create TRIM maps.



#### THE STEWARDSHIP CENTRE

Home - Stewardship Centre for BC (stewardshipcentrebc.ca)

This website has many resources regarding watershed stewardship. Including the Stewardship Series Package (series of publications for watershed Conservation - Wetlandkeepers are a part of this series)





### STANLEY PARK ECOLOGY SOCIETY (SPES)

Stanley Park Ecology Society (SPES)

This website promotes SPES's aims of education, conservation and outreach by providing information on conservation programs including school and public programs



#### WATER BALANCE MODEL POWERED BY QUALHYMO

Home - The Partnership (waterbucket.ca)

This website is a public domain tool that promotes rainwater management and green development practices in order to help communities create neighbourhoods that integrate both good planning and innovative engineering designs. The water balance model provides practitioner's with a 'runoff-based tool' for source control evaluation and stream health assessment. There is an option to sign up to try the Water Balance Model so that you can see how to reduce runoff through the free 30-day trial.



#### **DUCKS UNLIMITED EDUCATIONAL RESOURCES**

Educational Resources — Ducks Unlimited Canada

This interactive website has a variety of different tools that will help educators find resources that will help further their classroom studies





# FRASER VALLEY CONSERVANCY'S EGG MASS ID SHEETS

<u>Did You Know We Have Handy ID Sheets for Identifying Amphibians?</u> | <u>Fraser Valley Conservancy</u>

This website has handy ID sheets for identifying the distinct features of amphibian egg masses. Each one having its own unique characteristics.



# FRASER VALLEY CONSERVANCY'S FROGS & TOADS OF BC'S SOUTH COAST ID SHEETS

Frogs&Toads\_SC-KK-hires (fraservalleyconservancy.ca)

This website describes the many features of frogs and toads of BC's South coast with descriptive text and imagery.



### BC DICHOTOMOUS KEYS FOR SALAMANDERS, SNAKES, TURTLES, FROGS & TOADS OF VANCOUER ISLAND, AND AMPHIBIAN EGGS

<u>Herpetofauna Identification Keys - Province of British Columbia</u> (gov.bc.ca)

This website ha a variety of links that will lead you to various identification keys for herpetofauna.





### **REPORT ALL POACHERS & POLLUTERS (RAPP)**

Report All Poachers and Polluters (RAPP) - Province of British Columbia (gov.bc.ca)

The RAPP hotline is used to report wildlife-human interactions where public safety may be at risk. The RAPP program is a toll free tip line and online service that also allows you to report known or suspected violations of fisheries, wildlife, or environmental protection laws.



#### **FROGWATCH PROGRAM**

British Columbia - FrogWatch (naturewatch.ca)

This website describes the many features of frogs and toads of BC with descriptive text, classification and visual images.



#### **BC MARSH MONITORING PROGRAM**

<u>Marsh Monitoring Program - Birds Canada | Oiseaux Canada</u>

The Marsh Monitoring Program (MMP) is a wildlife monitoring program for coastal and inland marshes. This website offers a unique opportunity for stewards to contribute toward understanding and conserving wetlands.





#### **NATURE SERVE DATA ON SPECIES & ECOSYSTEMS**

Access Data on Species & Ecosystems | NatureServe

NatureServe datasets are available for free download or for purchase. This data is collected through mapping biological features with high precision and assessing their conservation status.



#### **AMPHIBIANS IN BC**

Amphibians in B.C. - Province of British Columbia (gov.bc.ca)

This website has links attached that will lead you to various identification keys and explanations of their habitat and biology.



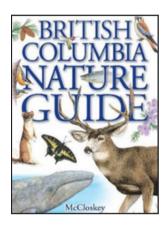
#### TORONTO ZOO'S ADPOT-A-POND PROGRAM

Toronto Zoo | Adopt A Pond

This interactive website provides excellent resources on amphibian identification at all life stages, as well as information on wetlands, and herpetology.



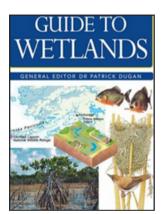
#### **GENERAL TOPICS**



#### **BRITISH COLUMBIA NATURE GUIDE**

Erin McCloskey & Gregory Kennedy 2010

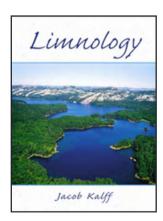
<u>British Columbia Nature Guide: McCloskey, Erin: 9781551058535:</u>
<u>Books - Amazon.ca</u>
\$49.99 CAD



### **GUIDE TO WETLANDS**

Patrick Dugan 2005

Guide to Wetlands: Dugan, Dr Patrick: 9781554071111: Amazon.com: Books \$9.22 CAD



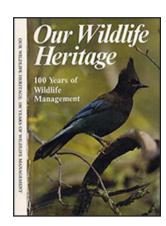
#### LIMNOLOGY

Jacob Klaff 2002

<u>Limnology: Kalff, Jacob: 9780130337757: Books - Amazon.ca</u> \$54.63 CAD

https://livresbioapp.files.wordpress.com/2016/03/limnology-kalff.pdf
Free PDF version

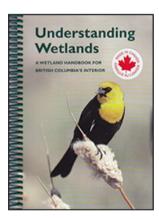




# OUR WILDLIFE: 100 YEARS OF WILDLIFE MANAGEMENT

The Centennial Wildlife Society of British Columbia 1987

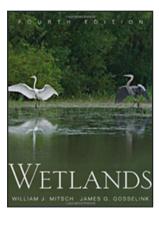
Our Wildlife Heritage: 100 Years of Wildlife Management: n/a: 9782211251006: Amazon.com: Books \$29.99 CAD



# UNDERSTANDING WETLANDS: A WETLAND HANDBOOK FOR BC'S INTERIOR

Bruno Delesalle 1998

<u>Understanding Wetlands: A Wetland Handbook for British Columbia's</u>
<u>Interior: Bruno Delesalle: 9780969294337: Books - Amazon.ca</u>
\$22.95 CAD

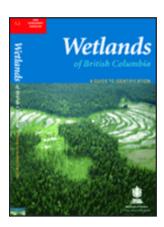


#### **WETLANDS**

William Misch & James Gosselink 2007

<u>Wetlands: Mitsch, William J., Gosselink, James G.: 9780471699675:</u>
<u>Books - Amazon.ca</u>
\$146.86 CAD



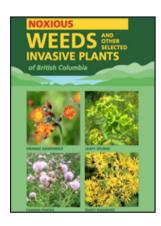


# WETLANDS OF BRITISH COLUMBIA: A GUIDE TO IDENTIFICATION

William H MacKenzie & Jennifer Moran 2004

2004, Wetlands of British Columbia: A Guide to Identification (gov.bc.ca)
Free PDF download

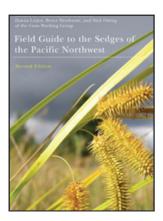
#### **PLANTS**



# FIELD GUIDE TO NOXIOUS WEEDS & OTHER SELECTED INVASICE PLANTS OF BRITISH COLUMBIA

David Ralph and Staff, Invasive Species Council of BC and Val Miller, Invasive Plant Program, Range Branch, B.C. Ministry of Forests, Lands and Natural Resource Operations 2021

50771 field guide 11th edition.indd (bcinvasives.ca)
Free PDF download

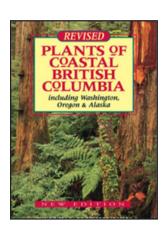


# FIELD GUIDE TO THE SEDGES OF THE PACIFIC NORTHWEST

B. Wilson, R. Brainerd, D. Lytjen, B. Newhouse & N. Otting 2014

<u>Field Guide to the Sedges of the Pacific Northwest: Second Edition:</u>
<u>Wilson, Barbara L.: 9780870717284: Amazon.com: Books</u>
\$32.95 CAD

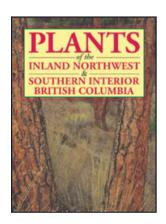




# PLANTS OF COASTAL BC INCLUDING WASHINGTON, OREGON AND ALASKA

Jim Pojar & Andy MacKinnon 2016

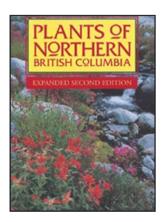
<u>Plants of Coastal British Columbia: Including Washington, Oregon</u> <u>and Alaska: Pojar, Dr. Jim, MacKinnon, Andy: 9781772130096: Books -</u> <u>Amazon.ca</u> \$32.95 CAD



# PLANTS OF SOUTHERN BRITISH COLUMBIA & THE INLAND NORTHWEST

Roberta Parish, Ray Coupe & Dennis Lloyd 1999

<u>Plants of Southern Interior British Columbia and the Inland Northwest:</u>
<u>Parish, Roberta: 9781551052199: Books - Amazon.ca</u>
\$66.71 CAD

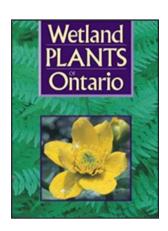


### PLANTS OF NORTHERN BRITISH COLUMBIA

Andy MacKinnon 1992

https://www.amazon.ca/Plants-Northern-British-Columbia-MacKinnon/dp/1551050153 \$33.54 CAD

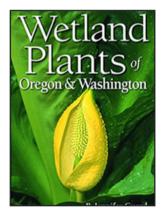




#### WETLAND PLANTS OF ONTARIO

Steven Newmaster, Allan Harris & Linda Kershaw 1997

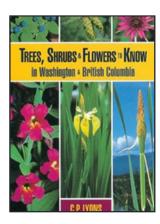
<u>Wetland Plants of Ontario: Newmaster, Steven, Harris, Alan, Kershaw, Linda: 9781551050591: Books - Amazon.ca</u> \$81.60 CAD



#### WETLAND PLANTS OF OREGON & WASHINGTON

Jennifer Guard 2010

<u>Wetland Plants of Oregon and Washington: Guard, B. Jennifer:</u>
9781551058559: Amazon.com: Books
\$22.95 CAD

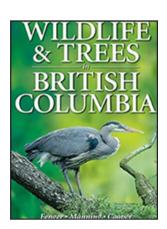


# TREES, SHRUBS, AND FLOWERS TO KNOW IN WASHINGTON & BC

C.P. Lyons & Bill Merilees 1996

<u>Trees, Shrubs and Flowers to Know in Washington and British</u>
<u>Columbia: Lyons, C. P., Merilees, Bill: 9781551050621: Books - Amazon.ca</u>
\$22.95 CAD

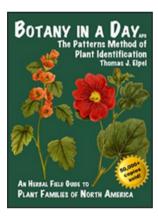




#### WILDLIFE TREES IN BRITISH COLUMBIA

M. Fenger, T. Manning, J. Cooper, S. Guy & P. Bradford 2006

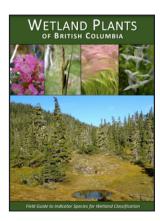
<u>Wildlife and Trees in British Columbia: Fenger, Mike: 9781551050713:</u>
<u>Books - Amazon.ca</u>
\$22.95 CAD



#### **BOTANY IN A DAY**

Thomas J. Elpel 2013

Botany in a Day: The Patterns Method of Plant Identification: Elpel, Thomas J.: 8601400138540: Botany: Amazon Canada \$48.68 CAD



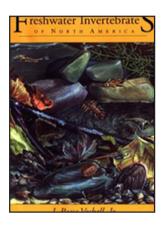
### WETLAND PLANTS OF BRITISH COLUMBIA

Jamie Fenneman & Ryan Durand 2021

<u>wetland\_plants\_of\_british\_columbia.pdf (wordpress.com)</u> Free PDF download



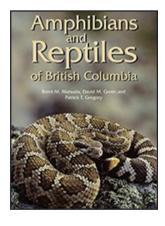
#### WILDLIFE



# A GUIDE TO COMMON FRESHWATER INVERTEBRATES OF NORTH AMERICA

J. Reese Jr. Voshell 2002

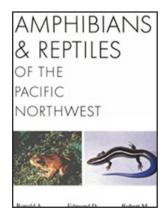
A Guide to Common Freshwater Invertebrates of North America: Voshell, J. Reese Jr., Wright, Amy Bartlett: 9780939923878: Books – Amazon.ca \$93.02 CAD



#### **AMPHIBIANS & REPTILES OF BRITISH COLUMBIA**

Brent Matsuda, David Green & Patrick Gregory 2006

Amphibians and Reptiles of British Columbia: Matsuda, Brent M., Green, David M., Gregory, Patrick T.: 9780772654489: Books – Amazon.ca
\$22.95 CAD

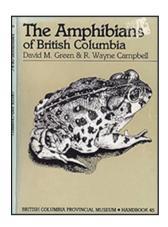


# AMPHIBIANS & REPTILES OF THE PACIFIC NORTHWEST

Ronald Nussbaum, Edmund Brodie Jr, & Robert Storm 1983

Amphibians and Reptiles of the Pacific Northwest: Nussbaum, Ronald A: 9780893010867: Amazon.com: Books
\$7.65 CAD





#### THE AMPHIBIANS OF BRITISH COLUMBIA

David M. Green & R. Wayne Campbell 1992

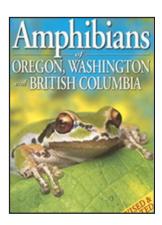
<u>The Amphibians of British Columbia: Campbell, R. Wayne, Green, David Martin: 9780771884276: Amazon.com: Books</u>
\$16.88 CAD



# HABITAT MANAGEMENT GUIDELINES FOR AMPHIBIANS & REPTILES

Amphibian and Reptile Conservation 2008

<u>seHabitatManagementGuide.pdf (landcan.org)</u> Free PDF download

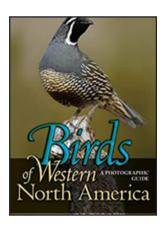


# AMPHIBIANS OF OREGON, WASHINGTON & BRITISH COLUMBIA

B. Wilson, R. Brainerd, D. Lytjen, B. Newhouse & N. Otting 2014

<u>Amphibians of Oregon, Washington and British Columbia: Corkran, Charlotte: 9781551055664: Books - Amazon.ca</u> \$34.75 CAD

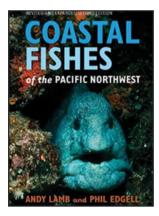




# BIRDS OF WESTERN NORTH AMERICA (A PHOTOGRAPHIC GUIDE)

Paul Sterry & Brian E. Small 2009

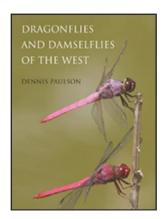
<u>Birds of Western North America: A Photographic Guide: Sterry, Paul, Small, Brian E.: 9780691134284: Books - Amazon.ca</u> \$23.99 CAD



### **COASTAL FISHES OF THE PACIFIC NORTHWEST**

Andy Lamb & Phill Edgel 2010

https://www.amazon.ca/Coastal-Pacific-Northwest-Revised-Expanded/dp/1550174711 \$ 29.95 CAD

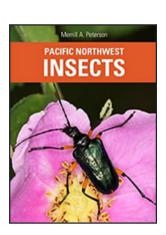


### **DRAGONFLIES & DAMSELFLIES OF THE WEST**

Dennis Paulson 2009

<u>Dragonflies and Damselflies of the West: Paulson, Dennis:</u> 9780691122816: <u>Books - Amazon.ca</u> \$30.00 CAD

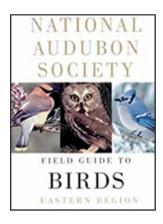




#### **INSECTS OF THE PACIFIC NORTHWEST**

Peter Haggard & Judy Haggard 2006

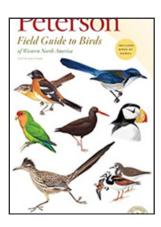
<u>Pacific Northwest Insects: Peterson, Merrill A.: 9780914516187: Books</u>
<u>- Amazon.ca</u>
\$37.53 CAD



# NATIONAL AUDUBON SOCIETY FIELD GUIDE TO NORTH AMERICAN BIRDS

Miklos Udvardy & John Farrand Jr 1997

National Audubon Society Field Guide to North American Birds--E:
Eastern Region - Revised Edition: National Audubon Society:
9780679428527: Books - Amazon.ca
\$ 28.00 CAD

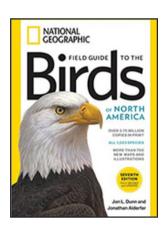


### PETERSON FIELD GUIDES TO WESTERN BIRDS

Roger Tory Peterson 2020

<u>Peterson Field Guide To Birds Of Western North America, Fifth</u>
<u>Edition: Peterson, Roger Tory: 9781328762221: Books - Amazon.ca</u>
\$28.99 CAD

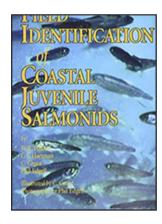




### FIELD GUIDE TO THE BIRDS OF NROTH AMERICA

National Geographic 2017

<u>National Geographic Field Guide to the Birds of North America, 7th Edition: Alderfer, Jonathan: 9781426218354: Books - Amazon.ca</u> \$39.99 CAD



# FIELD IDENTIFICATION OF COASTAL JUVENILE SALMONIDS

W.R. Pollard, G.F. Hartman, C. Groot, & Phil Edgell 1997

<u>Field Identification of Coastal Juvenile Salmonids: Pollard, W.R.,</u>
<u>Hartman, G.F., Groot, C., Edgell, Phil, Groot, C., Edgell, Phil:</u>
<u>9781550171679: Books - Amazon.ca</u>
\$ 14.95 CAD

# DOWNLOADABLE APPS



#### PLANT IDENTIFICATION



#### **INATURALIST**

Free download

iNaturalist helps identify plants & animals that are visually similar with suggestions by verified contributors. This is done through taking photos and/or importing photos. The iNaturalist community is filled with over a million scientists and naturalists.



#### **SEEK BY INATURALIST**

Free download

Uses image recognition technology to identify plants & animals. A synopsis of the species and map range is shown once the species observed is identified.



#### **PICTURE THIS**

Free download

Identifies over 1,000,000 + plants. This app can diagnose plant problems and provide treatment suggestions with one-on-one conversations with botanists.

# DOWNLOADABLE APPS





#### **GOOGLE LENS**

Free download

Identifies various wildlife including both plants and animals



#### **SHROOMIFY**

Free download

Identifies fungi by selecting characteristics of the fungi you are observing. This app also has a feature that allows you to view the "Top 20" most common fungi of the month based on where you are located.



#### MERLIN BIRD ID

Free download

Identifies birds that you both see and hear. This app is powered by eBird which is the world's largest database of bird sightings, sounds, and photos. There are a number of ways to get the identification to a sighting. This can be done through answering some questions, uploading a photo, record a bird singing, or looking through the most common birds within the region of observation.

# DOWNLOADABLE APPS



### **NAVIGATION / MAPPING**



#### FILED MAPS BY ARC GIS

Free download

High quality maps created by Arc GIS. This app allows you to download maps to your personal device to work offline.



#### **GAIA GPS**

Free download

Worldwide maps that allow you to discover trails confidently. Other features include Net Geo Trails Illustrated, USFS, and hi-resolution satellite imagery.



#### **GOOGLE EARTH APP + DESKSTOP**

Free download

Has the ability to show some features only. To view an area, you need to download an offline cache of the area of interest before you go. This app generally works better on a desktop.