1 Is this the right career for you?

Have you wanted to do conservation work since you were a small child, or did the allure of being a ballet dancer or firefighter attract your earliest passions, with conservation work coming to the fore much later in your life? What is it about conservation work that attracts you: perhaps being on the front line to conserve the natural world, perhaps being able to spend your days working outdoors in special places? In this chapter we explore what it means to be a conservation professional and then consider some of the basic preparations necessary to travel down this road.

WHAT IS A CONSERVATION PROFESSIONAL?

When you think of an archetypal conservation professional, what do you envision? Perhaps a park ranger, responsible for ensuring that nature is conserved in a large tract of wild country, or a wildlife manager working with local

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communities to restore populations of an endangered species. Certainly these people are well represented under the umbrella of conservation, but they are not alone. For example, although people educated in the natural sciences traditionally dominated conservation work, the role of people with backgrounds in the social sciences and humanities is now very large and still growing. If we define conservationists as people who protect the natural world from misuse and who oversee the wise management of natural resources, then it is nearly impossible to distinguish them from environmentalists, who seek to maintain and improve the environment, and ecologists, who study the interactions among humans, other organisms, and their environments. Thus, conservation professionals would also include a policy specialist employed by an environmental advocacy group to influence legislation, an academic who studies how ecosystems function and shares that knowledge with students, a government official who monitors water and air quality, and many other people. The umbrella stretches from those who actively support careful use of natural resources (for example, most foresters, game managers, fisheries managers, and range managers) to preservationists who strive to protect nature from human intrusions. This assemblage of people may seem very diverse, but compared to the population at large they are likely to share broadly similar values and interests. This is not to say that they are like peas in a pod. Indeed, intra-family squabbling does occur, for example when one conservation professional sees a particular forest primarily as habitat for a rare reptile and secondarily as a source of timber, while another has reversed priorities. One of the roles that social scientists play is providing systematic assessments of how and why such values differ.

Also under the umbrella you will encounter people as diverse as a civil engineer who designs hydrological systems for wetland restoration, a business person whose company recycles solid waste, a lawyer who writes environmental legislation, or a medical researcher who specializes in human diseases that are caused by environmental degradation. Some people would argue that these people are not conservation professionals. Is it the nature of the specific work that is important (writing legislation compared with writing a park management plan) or is it the ultimate impact on nature and natural resources? What about someone who works in finance, fund-raising, or information technology for a conservation organization? Their day-to-day work may be entirely removed from the natural world, but they may make a larger contribution to the success of the organization than a field biologist working for the same group. Box 1.1 provides a more comprehensive view of the issue, but even it does not cover all the possibilities.[1.1]

We could argue in circles about how to draw a line around who is or is not a conservation professional, but the distinction is not really important. The good news is that there is enormous latitude for developing a career that meets your skills and aspirations *and* makes a major contribution to conservation. It is important that you begin with some serious introspection. Are you a person who thrives working with a group of people from diverse backgrounds to solve a complex social problem, or are you more content sitting alone at a computer, or traveling around remote terrain gathering data with one other colleague? These and many other predilections are easily accommodated in a conservation career.

This book will be most relevant to the conventional conservation professionals who dominate the center of the umbrella, but at some level it will be of use to everyone who aspires to work under the umbrella, or near it. Wherever you fit, you will get where you are going more readily with a strong education, often a graduate degree, and thus your formal education is a major focus of this book, but we also address your informal education through various experiences.

CONSERVATION CONTRIBUTORS

Many people care about conservation issues profoundly but are not in a position to become conservation professionals. Nevertheless, they can integrate conservation into their work in some fashion. For example, painters, musicians, and other artists are well known for bringing nature and conservation into their work as a source of inspiration and as a vehicle for expressing their values, often reaching a broad audience. Indeed, when you consider that a janitor who uses environmentally safe cleaning products and recycles refuse is making a noteworthy difference, it is clear that everyone can integrate conservation into their work to some degree. Simply donating some of the monies generated by work is one of the easiest and most important contributions.

Millions of people undertake conservation work on a volunteer basis by spending their weekends taking children on nature walks, surveying bird populations, collecting water-quality samples, planting native vegetation, and so on. These activities are so rewarding – providing both recreation and a sense of purpose – that they are often the first step in leading people into conservation work as a full-time career. Some of these people reach this decision long after their days of youth have passed, but not too late to make a career change. Every year many middle-aged people give up their current

Box 1.1 A classification of some employment opportunities for conservation professionals

The matrix below depicts some of the major kinds of jobs that conservation professionals hold and the major types of organizations that employ them. The Xs indicate types of position commonly held by many people, the asterisks indicate posts held by modest numbers, and blanks indicate positions that are rare or non-existent.

	Government agency	**Environmental NGO***	**Educational institution**	**Consulting firm**	**Natural resource industry**	**Zoo, garden, aquarium, museum**	**Self-employed**
Biologist	X	X	X	X	X	X	+
Earth scientist†	X	+	X	X	X	+	+
Educator	X	X	X	+	+	X	+
Engineer	X		+	X	X		+
Information technology	X	X	X	X	X	+	+
Lawyer	X	X	+	X	X		+
Policy, planning, administration	X	X	X	X	X	X	+
Pollution technology	X	X	+	X	X		+
Social scientist‡	X	X	X	X	X	+	+

* NGO stands for non-governmental organization and in this context refers to private, not-for-profit environmental or conservation groups such as the World Wide Fund for Nature and The Nature Conservancy.

† Earth sciences include geology, hydrology, climatology, soil sciences, and others.

‡ Social sciences include anthropology, economics, sociology, psychology, and others.

(*continued*)

Box 1.1 A classification of some employment opportunities for conservation professionals (continued)

This classification is very coarse. To demonstrate how much detail is hidden let's consider just the first cell: government-agency biologist. First, there are hundreds of different types of biologist. We can separate them on at least four axes: (1) researchers, practitioners, and those who undertake both research and management; (2) taxonomy (e.g., entomologists, ornithologists, or lichenologists); (3) ecosystem type (e.g., marine, arid, or freshwater); and (4) systems focus (e.g., genetics, ecology, or veterinary medicine).

Next there are vast numbers of government agencies. State or provincial and national agencies are probably the largest employers of conservation professionals, but these posts also exist at lower levels of government (e.g., municipalities and counties) and in international quasi-governmental organizations like the United Nations. Some of the government agencies that employ conservation professionals will have words in their titles that you would expect: Conservation, Natural Resources, Environment, Lands, Parks, Outdoor Recreation, Forest, Agriculture, Marine Resources, Fisheries, Wildlife, Energy, Mineral Resources, Soil, Air, and Water. Others might surprise you, such as Public Works, Defense, and Health.

Finally, there are many positions that are not covered by this matrix at all. For example, organizations as diverse as charitable foundations, ecotourism businesses, professional societies, and manufacturers of pollution-control or energy-conservation equipment employ some people who can be considered conservation professionals. Furthermore, people who are employed by conservation organizations in support roles – for example, accountants and human-resource specialists – may not be conservation professionals *per se*, but they certainly contribute to the cause of conservation and are often drawn to these posts because of their conservation values.

work to return to university and earn a degree that will allow them to chart a new path as a conservation professional. This is not an easy path to take, at least for people with major responsibilities like raising children or paying a mortgage, but it is possible.

We had a graduate student who earned her PhD in wildlife ecology following a 10-year career working as a doctor specializing in internal medicine. Her strong background in physiology allowed her to complete a successful research project on the physiology of bears during hibernation.

People who have reached retirement age are less likely to pursue university degrees, but their financial independence often allows them to undertake volunteer conservation work on a nearly full-time basis.

My father retired at 54 and became president of the local bird club, a senior councillor in our local conservation non-governmental organization (NGO), and a major contributor to regional conservation policy development. He ended up working 50 hours per week after he had "retired" and has made a huge contribution over the last 15 years.

In short, if you decide that a conservation career is not right for you, there are ways to still be a "conservation amateur" and make a solid contribution. Conversely, if trying your hand at being a conservation volunteer convinces you that you should become a conservation professional, then you can still make the switch late in life.

DIVERSE COMPENSATIONS

Need a house with an Olympic-size pool? Want to vacation for a month on the French Riviera? You have probably already figured out that most conservation professionals are not rolling in excess money; that their job satisfaction

comes more from the rewards of the work itself than vast financial wealth. But let's explore this issue a bit more deeply. You may recall from an introductory economics course that the balance between supply and demand determines prices and this implies that wages would be low if the demand from conservation employers were easily met with the supply of people willing to take a conservation job. However, despite the many attractions of conservation work, the pool of conservation professionals is not completely flooded because of the specialized education and skills usually required, typically at least 4 years at university, and often 2 or more years of postgraduate education, coupled with some demonstration of professional experience. Thus, the good news here is that for those who do attain the necessary education, salaries are definitely respectable.[1,2] You may not get rich, in part because most conservation jobs are with government agencies and non-profit organizations rather than in private business, but you should be able to have a perfectly fine standard of living while enjoying a strong sense of personal fulfillment.

If you want to be a conservation professional and be *more* than financially comfortable, there are routes to pursue. In particular, conservation jobs in the private sector, notably with consulting firms, often pay very well, and leading a conservation group almost always pays better because of the added responsibility of managing large budgets and many employees.

Of course, less tangible benefits, notably job satisfaction, are often paramount for conservation professionals. Simply put, it is extremely rewarding to feel that you are working to make the world a better place. However, do not get the idea that every day you will feel triumphant. In the world of conservation, David often loses to the Goliath of insistent forces that degrade our planet, but you can always go to sleep at night knowing that you are striving to make a difference. And that is priceless for people who are passionate about conserving the natural world. If you lack that passion then you may get along as a conservation professional, but you will probably not flourish.

In the world of conservation, David often loses to the Goliath of insistent forces that degrade our planet, but you can always go to sleep at night knowing that you are striving to make a difference.

One of the key benefits of being a conservation professional is that the work is sometimes truly fun, pure and simple. As you know, not every conservation worker spends every day traveling to beautiful places to interact with creatures that other people seldom see, but

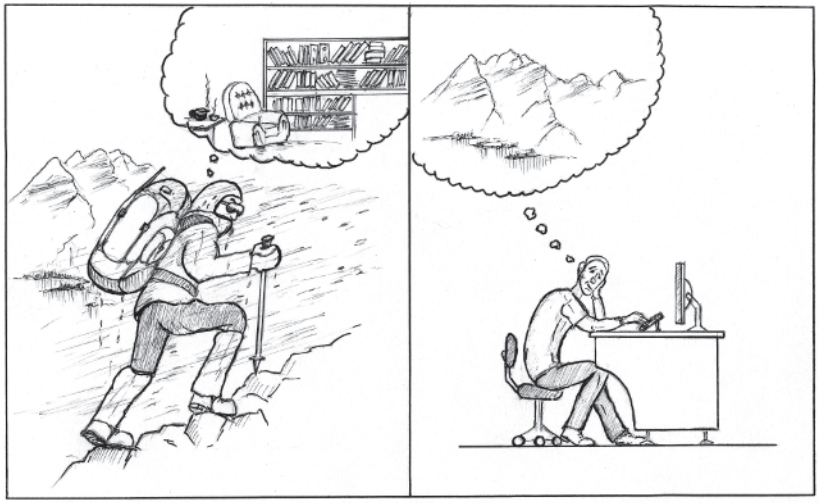
such days are a part of conservation work and they go a long way to compensate for the time spent in front of a computer or attending meetings that are a large part of most jobs, including conservation.

Some of the most memorable moments of my life have come through my employment: for example, while diving in the Caribbean to survey corals or searching for red pandas on the slopes of the Himalayas. Being a conservation professional has also opened doors to be with colleagues during their work; for example, joining them to watch a dozen male right whales churn the waters of the Bay of Fundy, or a gorilla family foraging on bamboo in the Virunga Mountains.

Of course, these experiences are the icing on the cake, and aspiring conservation professionals must realize that they are greatly outnumbered by hours hammering away at a keyboard for most of us. Still, compared to many jobs that have a large proportion of drudgery, conservation work stands out as quite attractive.

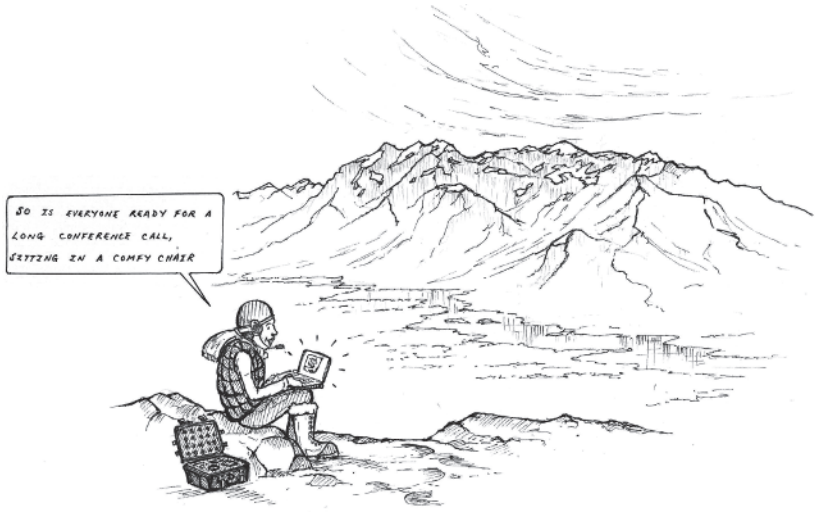
LOCATION, LOCATION, LOCATION

Do you like to pick up a cup of gourmet coffee on your way to work each morning? Or do you prefer to live 50 kilometers beyond the nearest electrical outlet, let alone espresso machine? Both lifestyles are entirely compatible with being a conservation professional because this career provides opportunities across the entire spectrum of urban and rural, even wilderness, settings. This is not true of all professions: if you are a piccolo player you will need dozens of other musicians to form an orchestra, or if you want to be a rancher you will need lots of open space for your herd. Compared to the population as a whole, conservation professionals are more likely to be in remote places than your average citizen. However, looking just at the distribution of conservation professionals, more of us work in cities than in the countryside because most government agencies and conservation groups have their offices in cities. Fortunately for these folks, their work may take them to places where they can enjoy wild nature for a limited period and then they can return to the day-to-day comforts of gourmet coffee.



THE GRASS IS ALWAYS GREENER.....

If you have your heart set on living in a particular rural spot, perhaps the island or valley where you grew up, then a conservation career will probably be more constraining than a common occupation that is in wide demand, such as teaching or nursing. Perhaps you can create your own conservation job – setting up eco-tours of your valley for example – but it will take considerable initiative. On the other hand, if you are a native of Madrid, Montreal,



Miami, or Melbourne and want to stay close to your roots, most cities have jobs for a fair number of conservation professionals. The bottom line is that even if you are choosey about the type of environment you wish to live in, a conservation career can easily fit your needs; if you have a specific rural place in mind you may need to be creative or lucky. Fortunately, new communication technologies (e.g., video conferencing) are creating ever more flexibility about where people work.

YOUR IMAGE

The most important person that you need to satisfy is yourself. If you are uncomfortable with your career choice – in particular, if you do not respect yourself and your work – then you are on the wrong path. This is not an issue for most conservation professionals; they are usually very proud of their work and justly so. But what do you do when someone challenges your choice of a career? Many conservation professionals, particularly those who work in beautiful places, regularly hear questions like, "They pay you to do this?" or "When are you going to get a real job?" Sometimes the motivation behind the question is envy. Many people are bored or disillusioned with their current jobs and would love to be able to switch to an exciting, worthwhile career. For these people, the best response is to give them an honest assessment of conservation work, which has its rewards but is not all milk and honey.

Sometimes these questions reveal a lack of respect for conservation work. People who do not value the natural world, people who measure their career success in terms of their salaries, may not understand the motivations of a conservation professional. They are likely to be thinking, "Why would someone compromise their earning power in a career that may stand in the way of commerce and other human enterprises?" You are not likely to change the values of such a person in a brief conversation, but there is no harm in trying. You might garner a modicum of respect by making an analogy to the widely respected medical profession, and pointing out that conservation professionals are doctors for the Earth.

Conservation professionals are doctors for the Earth.

TALK AND EXPERIENCE

Reading this book is analogous to having a long, in-depth conversation with three people. Collectively we have quite a bit of experience, but nevertheless the views expressed here are the opinions of only three people, somewhat refined by those whom we asked to review drafts of the book. It is a good idea to solicit

more opinions about the topics broached in this chapter and in all the chapters that follow. Talk to as many conservation professionals as you can about what they like and dislike about their careers and how they got started on their career paths. Ask your teachers about other students with similar interests whom they have counseled in the past. Talk to other students who are also contemplating a career in conservation, especially graduate students who are further along the road than you are. If you hear different opinions, try to sort out what lies behind these differences, perhaps returning to someone you talked with earlier to ask for clarification.

Talk to as many conservation professionals as you can about what they like and dislike about their careers and how they got started on their career paths.

The folk wisdom captured in phrases such as "talk is cheap" and "you need to walk the walk, not just talk the talk" suggests that you should go beyond chatting about conservation as a career over a cup of coffee. Ideally you would spend some real work time with a few conservation professionals. In the next chapter we will discuss the importance of finding substantial summer jobs, but there are some baby steps that you can take in that direction, simply to give you a better assessment of whether this is the right career path. For example, you might be able to tag along with a conservation manager for a day or two doing field work. Perhaps you can volunteer to spend a couple afternoons a week helping out in the office of an environmental group. You might end up stuffing envelopes, but just being in that work environment will give you subtle cues as to what it is like to be a regular employee there and the chance to develop relationships with potential employers.

Whatever approach you take, sorting out your career options is an important undertaking. It certainly merits taking the time to gather information, opinions, and ideally experiences from a diverse array of sources.

Further readings and notes

1.1 A number of books provide a broad overview of the kinds of careers that fit under the umbrella of conservation or the environment. Before making a purchase read reviews as some of them are narrower than you might surmise from their titles, and most are not global in scope.

Cassio, J. and A. Rush. 2009. *Green Careers: Choosing Work for a Sustainable Future*, New Society Publishers, Gabriola Island, B.C., Canada.

Deitche, S.M. 2010. *Green Collar Jobs: Environmental Careers for the 21st Century*, ABC-CLIO, Santa Barbara, California, C.A.

Environmental Careers Organization. 1999. *The Complete Guide to Environmental Careers in the 21st Century*, Island Press, Washington D.C.

Environmental Careers Organization. 2014. *The ECO Guide to Careers that Make a Difference*, Island Press, Washington D.C.

International Labour Organization. 2011. *Skills for Green Jobs: A Global View*, United Nations, Geneva.

Also note that New Society Publishers has two books with a more entrepreneurial approach to careers in conservation: *Making a Living While Making a Difference: Conscious Careers in an Era of Interdependence* (2007) and *Ecopreneuring: Putting Purpose and the Planet before Profits* (2008).

Virtually all organizations that are active in conservation have websites that you can peruse to get some flavor of the work they do, and most environmental non-governmental, non-profit organizations (NGOs) also have magazines and newsletters.

1.2 *The Complete Guide to Environmental Careers in the 21st Century*, see note 1.1, gives information on salaries for the USA but you will have to extrapolate from 1999.