

## Further Perspectives on Shifting the Paradigm to Restore the Human-Wetland Relationship through a *Universal Declaration of the Rights of Wetlands*

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### INTRODUCTION TO THE RELATIONSHIPS BETWEEN HUMANS AND WETLANDS

Humans have had a close association with wetlands for millennia. There is ample evidence to demonstrate that human well-being is closely linked with the condition of wetlands, whether that is described through measures of wetland health or wetland integrity, or by agreements to maintain their ecological character (Gardner and Davidson 2007; Pritchard 2018), or more anthropocentrically, through the provision of ecosystem services (de Groot et al. 1996; Finlayson and D’Cruz 2005; Figure 1). The Millennium Ecosystem Assessment included an exploration of the consequences of wetland change for human well-being and recommended a conceptual shift in decision and policy making to ensure the long-term future of the ecosystem services provided and supported by wetlands (Finlayson et al. 2005). The relationships between human well-being and wetlands was extended by Horwitz and Finlayson (2011) who made a case for bringing wetlands to the foreground as the settings and context in which certain human health determinants could be addressed. These measures were presented as complementary to existing approaches to wetland management that had largely focused on conservation and wise use based on establishing protected areas (Pittock et al. 2014), and specifically, wetlands of international importance (Ramsar sites; Davidson 2018), maintaining species populations (Finlayson and Davidson 2018), or restoring degraded wetlands (Zedler and Miller 2018).

However, over the past one to two decades there has been increasing evidence that current approaches to wetland management, whether protection, conservation, or restoration, have failed to reduce the rates of loss and deg-

radation globally (Ramsar Convention on Wetlands 2018; Darrah et al. 2019; Davidson et al. 2020a; McInnes et al. 2020). Further, the creation of human-made wetlands has failed to keep pace with the rate of loss (e.g., Dahl 2011; Darrah et al. 2019), and even when created, constructed wetlands often do not deliver the full suite of ecosystem services provided by the original wetland (Fennessy et al. 2008; Mitsch and Hernandez 2013; Neubauer 2014).

With this backdrop, a group of wetland and climate scientists, practitioners, and attorneys within the Society of Wetland Scientists (SWS) have been considering alternatives to the current paradigms relating to human-wetland relationships, and in particular, whether greater attention to the concept of wetlands having intrinsic (legal and ethical) rights can provide a transformational shift in the paradigms that have hitherto failed to reverse the trends of wetland loss and degradation (Davies et al. 2020). The multi-disciplinary group involved in these considerations is aware that alternative approaches will require further discussion and will likely be modified in response to inputs from different social and cultural viewpoints before they could be seen as having wide acceptance. In many respects this is not so different from the development in the 1960s of the proposals that became the intergovernmental Ramsar Convention in response to growing concern over the loss and degradation of wetlands and of their migratory waterbird populations in particular (Matthews 1982). It may be too much of a stretch to link the steps that led to the development of an intergovernmental agreement with the processes now being used to develop a paradigm based on the Rights of Wetlands, but the imperative is much the same, despite being separated by half a century in time. The imperative is that current institutional processes and actions to maintain wetlands, their biodiversity and their many benefits to people, are not good enough.

It is anticipated that by looking at a universal declaration of the Rights of Wetlands the proponents could extend the dialogue about human connections with Nature to explicitly position wetland researchers, practitioners, and attorneys alongside the many other people who have long sustained such beliefs and practices, in some instances over extended periods of human history (Davies et al. 2020). It is further anticipated not only that such approaches could

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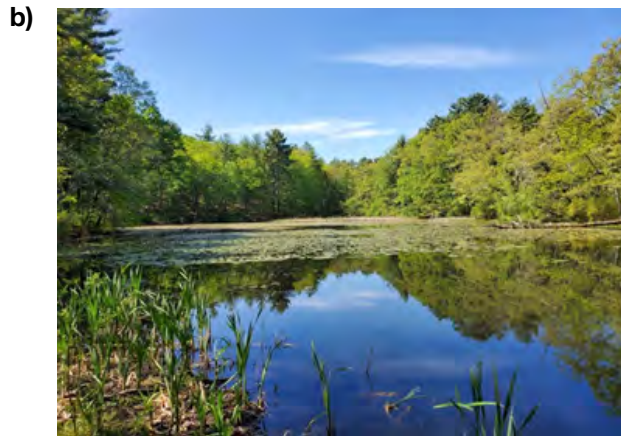
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**FIGURE 1.** Photos of wetlands in different regions of the world to illustrate their diversity and some of the many ways they are used by humans - the human-wetland relationship: a) tussock sedge (*Carex stricta*) emerging in red maple (*Acer rubrum*) swamp, Massachusetts, USA; b) wetland pond, Massachusetts, USA (photos a and b by G. Davies); c) unique local community managed floating peat vegetable gardens, Inlay Lake Ramsar Site, Myanmar; d) traditional local community fisher, Inlay Lake Ramsar Site, Myanmar (photos c and d by N. Davidson); e) traditional lama grazing and f) community members tending lamas in high altitude peatlands known as bofedales, Peru (photos e and f by S. Fennessy).



augment existing national and international approaches towards wetlands, but they could also replace them. This is not so fanciful, given that despite the decisions taken by national governments in support of the Ramsar Convention on Wetlands, many of the mechanisms agreed by the Contracting Parties to the Convention are not being effectively used (Davidson et al. 2020b), and targets such as the Aichi Targets for Biodiversity are unlikely to be achieved for wetlands (Turak et al. 2017). The Ramsar Convention does not have specific targets for wetlands in the same way as those adopted through the Convention on Biological Diversity, but the Global Wetland Outlook produced by the Convention in 2018 and strongly endorsed by the Contracting Parties to the Convention, provides a basis for setting targets (Ramsar Convention on Wetlands 2018).

As part of the effort to draw further attention to the Rights of Wetlands a symposium was developed for inclusion in the “RE3” Conference: *Reclaim Restore Rewild* that had been planned for June 2020 (Simpson et al. 2020). The symposium, entitled *A Universal Declaration of the Rights of Wetlands – Shifting our paradigm restores the human-wetland relationship in support of wetland restoration, conservation and wise use*, is comprised of 6 presentations led by members of the Ramsar Section within the Society of Wetland Scientists (<https://www.sws.org/Membership/section-membership.html>). This symposium is now planned for presentation at “SER2021 World Conference” (virtual) in June 2021, and will address the reasons why a *Declaration* of wetland rights is needed, what the *Declaration* entails, how it differs from existing declarations, and how the Ramsar Convention on Wetlands, wetland scientists, scientific societies and others could utilize it to further the restoration, conservation, protection, management and wise use of wetlands throughout the world. An extended abstract of each of the talks that were planned for the symposium is presented below as a primer on the Rights of Wetlands. These represent a range of views and emphases, and are presented as a part of the wider dialogue that we would like to generate about the concepts in particular, and also about the related wider approaches to wetland management. As the dialogue has already started, let it continue, and let it be enriched by a diversity of views about the Rights of Wetlands.

#### **WHAT IS THE RELATIONSHIP BETWEEN THE RIGHTS OF WETLANDS, BIODIVERSITY LOSS AND THREATS TO HUMAN WELL-BEING? THE WORK OF THE INTERGOVERNMENTAL PANEL ON BIODIVERSITY AND ECOSYSTEM SERVICES** (M.S. FENNESSY)

Wetland biodiversity, both in terms of the wealth of wetland types and the species they support, is in decline in every region of the world (Ramsar Convention on Wetlands 2018). A consequence of this is a significant reduction in the

capacity of wetlands to provide the benefits that contribute to human well-being (IPBES 2018, 2019; Davidson et al. 2020a). These contributions, often referred to as ecosystem services and increasingly known as Nature’s Contributions to People (NCP; Diaz et al. 2015) include material (e.g., food and feed), non-material (learning and inspiration, supporting identities), and regulating NCP (climate and water quality regulation).

In response to the growing global biodiversity crisis, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has taken the lead on documenting the essential relationship between biodiversity, ecosystems, and the ability of Nature to provide benefits to people, while at the same time recognizing a variety of world views and the multiple values of Nature. For example, the IPBES Americas Assessment (IPBES 2018) documented the exceptional diversity of the Americas, which contain over 40% of the world’s most biodiverse countries and have three times more ‘biocapacity’ per capita (i.e., the capacity of a given area to generate a supply of renewable resources and absorb wastes; Wackernagel and Beyers 2019) than the global average. However, like much of the rest of the world, the biodiversity and condition of wetlands and other ecosystems in the Americas is decreasing. For example, the Americas have historically been rich in water resources, but widespread land use changes have resulted in regional wetland losses that range from 20-60% of total wetland area since 1970, with losses of up to 90% in some agricultural regions (Dahl 1990). The result is a substantial decline in the benefits that wetlands contribute to people: of the 18 wetland NCP evaluated, 66% were found to be in decline, with 30% in strong decline (IPBES 2018).

The intrinsic value of Nature is at the heart of the IPBES framework, as it recognizes the interdependency that exists between biodiversity and human health and well-being while valuing and incorporating knowledge from local and Indigenous peoples. An awareness of the ways wetlands support human well-being is most effective when multiple values and value systems are taken into account. IPBES (2019) also recognizes that the multiple policy and governance arrangements that are in place to protect wetlands have not been effective, calling for a concerted effort for transformative change to address the drivers that cause wetland loss and degradation. Calls for transformative change help build a case to recognize the inherent Rights of wetlands to exist and to avoid degradation, and the ethical and legal responsibilities humans have to protect the well-being of ecosystems (Simpson et al. 2020). A fundamental way forward is to adopt the *Universal Declaration of the Rights of Wetlands*. In doing so, we will begin to acknowledge the standing of wetlands and ask not only how do

wetlands sustain us, but how can we better sustain them and preserve and restore their place in the landscape?

### **WHY COULD A UNIVERSAL DECLARATION OF THE RIGHTS OF WETLANDS SUPPORT WETLAND WISE USE? (N. DAVIDSON)**

We face a widely recognized global biodiversity crisis (IPBES 2019). Wetlands are not exempt, and the evidence suggests that declines in wetland area and in wetland-dependent species are as fast, or faster, than for any other ecosystem (MEA 2005; Ramsar Convention on Wetlands 2018).

In 1971, almost 50 years ago, the Ramsar Convention on Wetlands was established by governments because of increasing concerns over wetland loss and degradation – and its impacts on wetland-dependent species. But since 1970 the area of wetlands has progressively continued to decline, through deliberate drainage and conversion, in all parts of the world (Davidson 2014; Darrah et al. 2020; McInnes et al. 2020). Deterioration in the state of our remaining wetlands is becoming progressively more widespread, including for designated Wetlands of International Importance (Ramsar Sites) (Davidson et al. 2020; McInnes et al. 2020). Populations of freshwater species have declined since 1970 far more than species depending on other biomes (Ramsar Convention on Wetlands 2018). For wetlands, based on current data (Ramsar Convention on Wetlands 2018; Finlayson and Davidson 2018; Darrah et al. 2019) it is clear that the world's governments will not meet their 2020 Aichi Targets for biodiversity (Convention on Biological Diversity 2010) for wetlands.

Yet the world's governments are continuing with “business as usual.” In 2020 they are preparing to adopt another set of biodiversity targets, this time for 2030 (Convention on Biological Diversity 2020). The draft targets are similar to or more ambitious than the previous 2020 Aichi Targets, which, as already stated, are not being delivered. For example, concerning the extent of ecosystems, Aichi Target 5 is: “*By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced*”. The equivalent draft post-2020 target is more ambitious: “*Retain and restore freshwater, marine and terrestrial ecosystems, [...] achieving by 2030 a net increase in area, connectivity and integrity and retaining existing intact areas and wilderness.*”

Despite the many efforts and actions worldwide over the past 50 years for wetland conservation and wise use, they have clearly not been sufficient to achieve the Ramsar Convention's goal of stemming the loss and degradation of wetlands. Sectoral Nature conservation actions and protected area approaches for wetlands have failed to deliver, and can be expected to continue to fail: the drive for economic growth rather than truly sustainable development continues

to override achieving wetland wise use (Ramsar Convention on Wetlands 2018). So, business as usual is really not an option. We all need to change our mindsets and approaches and develop new paradigms such as adopting the Rights of Wetlands if we are to truly achieve wetland wise use now and in the future.

### **WHAT GOVERNANCE AND CULTURAL FACTORS IMPACT UNITED STATES (US) IMPLEMENTATION OF THE RAMSAR CONVENTION ON WETLANDS? (J. WHITACRE)**

The Ramsar Convention provides an international mechanism for protecting some of the most ecologically valuable wetlands (or Ramsar sites) in 171 countries. In July 2020, 2394 Ramsar sites protected 253,911,099 hectares of wetlands worldwide (Ramsar Convention 2020). Recently scholars have questioned the effectiveness of the Convention and whether individual countries have sufficient capacity to implement its many requirements (Davidson et al. 2020a, b). In this context, implementation can be understood as the translation of policy into practice. New empirical research from the Environmental Conventions Index (ECI) based on peer-checked codings of national Ramsar reports challenges traditional assumptions about convention implementation by the Global North. The ECI codes financial, informational, management, technical, and regulation implementation information from national reports on a 0-5 scale (with 5 being the highest level of implementation and 0 the lowest), allowing for comparison of Ramsar convention implementation across states (countries).

The US scored an average of Ramsar ECI score of 4.24 out of 5 in 2018. According to the ECI, the biggest challenge for US implementation of Ramsar today has been community outreach. The US scores challenge the conventional wisdom that capacity is responsible for implementation (VanDeveer 2000; VanDeveer and Dabelko 2001; Haas 2015). If the US has financial, informational, management, technical, and regulation capacity, why did the US not implement the Ramsar Convention fully? Comparing US implementation scores to Global South countries that lead the world in implementing the Ramsar Convention, including Nicaragua (4.74 Ramsar ECI score) and Mali (4.6 Ramsar ECI score), shows that capacity may be a necessary, but insufficient factor for implementation. Examining US implementation of Ramsar through the ECI, the first empirical measure of implementation, and the cultural lens of global states (e.g., countries with higher ECI scores) is one way to examine connections between governance, culture, and implementation empirically.

From the 1780s to 1980s, the US destroyed 50% or more of wetlands in 22 states (Dahl 1990). A 1986 US State Department Report on the Ramsar Convention drew attention to the scale and rate of this US wetland destruction due to, “...agricultural conversion, air and water pollution, over-

exploitation, peat-mining, water-control projects, landfills, clearcutting of swamps and bottomland forests, pesticides, gas and oil development, and other activities” (Fox 1986, p. 1). In contrast to the American ethos of development (e.g., manifest destiny), certain Mali populations have animist relationships with Nature that emphasize respect for undisturbed habitat. Mali’s national constitution holds that, “Every person shall have the right to a healthy environment. The protection, defense and promotion of the environment shall be obligations for all and for the State.” Similarly, Nicaragua, which also has higher Ramsar Implementation ECI scores than the US, has a constitution that enshrines Nicaraguans’, “... right to live in a healthy environment. It is the obligation of the State to preserve, conserve and recover the environment and the natural resources.” Future research could explore the genealogy, or origins, of each state’s cultural values and legal protections for the environment.

Debates about capacity and implementation based in theory may misinform the academic community and actual practitioners about best governance practices if theory does not incorporate empirical evidence, such as the ECI. Mali and Nicaragua’s higher ECI scores demonstrate that capacity may be a necessary but insufficient part of implementation. While the US may have greater financial, informational, management, technical, and regulation capacity than many Global South countries, US Ramsar implementation scores still lag behind Global South implementation leaders. Ramsar implementation leaders, like Mali and Nicaragua, show how place-specific cultural paradigms can lead to better implementation of the Ramsar Convention. In conclusion, enriching US engagement with Nature through culture and Rights of Nature from around the world may complement ongoing Ramsar efforts at the US local, state, and national levels aimed at the wise and multi-generational use of wetlands.

### **WHY ARE LOCAL COMMUNITY AND INDIGENOUS PEOPLE’S VIEWS FUNDAMENTAL TO THE SHAPING OF A UNIVERSAL DECLARATION OF THE RIGHTS OF WETLANDS?**

(M. SIMPSON AND D. PRITCHARD)

*“We have been conserving these areas without even realizing it. For wetlands, for Indigenous [peoples] living here around, [the belief] is that every single living organism, plants, wetlands, grasses have gods in them. If you burn the savannas or you take something from the wetland then you have to say a special prayer as a local and that type of relationship was always there..... Wetlands are being destroyed so I think we should have a declaration of wetland rights, the same as humans, so we can keep them pristine and so they will always be there, not only for us, but for generations to come.” - Rudolph Roberts, Yupukari, North Rupununi, Guyana.*

Improved understanding of the belief systems and traditional practices of indigenous peoples and local communities (IPLCs) has contributed to recent growth in a contemporary formal recognition of the Rights of Nature (Demos 2015). The values and belief systems of IPLCs often contain the fundamental understanding that the human species is part of ecosystems rather than apart from them, and therefore that Nature should be afforded the same rights as humans. This may be one reason why traditional knowledge and approaches to management often play a significant role in protecting crucial habitats and the socio-ecological systems they support. Indigenous peoples manage or have tenure rights over land that intersects about 40% of all terrestrial protected areas and ecologically intact landscapes, highlighting how indigenous peoples, through their knowledge and practices, have successfully supported and maintained a significant share of the planet’s ecosystems (IPBES 2019).

Regional and global scenarios often lack and would benefit from an explicit consideration of the views, perspectives and rights of IPLCs, their knowledge and understanding of ecosystems, and their desired futures (IPBES 2019). IPLCs provide an important perspective as they often live in a more intimate relationship with wetland ecosystems and their futures are directly at risk from wetland loss or degradation. Recognition of the wisdom, customs, governance, management approaches and values of IPLCs and their direct engagement in environmental governance can be an important factor in achieving effective nature conservation, restoration and sustainable use (IPBES 2019). The development of sustainable management models for water security, food security, health and well-being, conversely, supports the wisdom and rights of IPLCs in terms of their connectedness to wetlands.

*Connectedness* is one of two fundamental concepts that can be learned from IPLC knowledge (de Ville 2019). Connectedness is the idea that knowledge is gained from daily observations of “what is happening around me.” Instead of a reductionist approach, IPLCs often exemplify a relational approach to building knowledge, and recognize the interconnectedness of all living things as a result. The second concept - *collectiveness* - is the awareness that we need to take more responsibility for one another and to adopt values of collaboration, sharing and reciprocity, including in a wider sense, beyond our own species. Learning from IPLC knowledge involves becoming much more aware of the interdependencies between human beings and the rest of the natural world. The concepts of connectedness and collectiveness, and in particular the implication that reciprocity requires equitable treatment of humans and the more-than-human, therefore provide a natural underpinning for the declaration of wetland rights.

The United Nations Declaration on Rights of Indigenous Peoples addresses the most significant issues affecting indigenous peoples - their civil, political, social, economic and cultural rights. The development of a declaration of wetland rights should embody this same thinking and therefore support the wisdom and rights of IPLCs with respect to the environment and their relationship with wetlands.

### **HOW CAN WE CHANGE OUR PARADIGM TO IMPROVE WETLAND CONSERVATION, PROTECTION, RESTORATION AND WISE USE OUTCOMES? (G. DAVIES AND C.M. FINLAYSON)**

As described above, the current paradigm for conservation and protection of wetlands is failing to achieve goals set to ensure ecological and human well-being and sustainability and to avoid catastrophic collapse of planetary and ecological processes that support life. As we face climate destabilization (Ripple et al. 2020), biodiversity loss (Trisos et al. 2020), and deterioration of the biosphere (Ripple et al. 2017), tens of thousands of scientists, as documented in these three cited articles alone, urge a fundamental change in our relationship with Nature and the biosphere.

As global conditions worsen, the Rights of Nature movement (Berry 2001; Stone 2010; Cullinan 2011), often led by local and Indigenous peoples (O'Donnell and Talbot-Jones 2018; Pecharroman 2018) is a powerful and growing response (Kimmerer 2013; Kauffman and Martin 2018) to global ecological, biodiversity, and climate emergencies. The Rights of Nature movement fundamentally shifts the ethical and legal paradigm for the Human-Nature relationship (Koons 2012). Just a few of the many recent Rights of Nature accomplishments include:

- 2000: The Earth Charter, endorsed by over 2,000 organizations, states, “Earth, our home, is alive with a unique community of life...we must decide to live with a sense of universal responsibility...The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature.” <https://earthcharter.org/read-the-earth-charter/download-the-charter/> (accessed 20 June 2020)
- 2008: Inclusion of the Rights of Nature in the Ecuadorian Constitution (<https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html> accessed 20 June 2020)
- 2010: Universal Declaration of the Rights of Mother Earth (Pachamama), issued at the World People’s Conference on Climate Change and the Rights of Mother Earth in Cochabamba, Bolivia, states: “Mother Earth is a unique, indivisible, self-regulating

community of interrelated beings that sustains, contains and reproduces all beings.” (<https://www.iucn.org/content/draft-universal-declaration-rights-mother-earth> accessed 7 August 2020)

- 2017: The New Zealand Parliament passes the Te Awa Tupua Act (Whanganui River Claims Settlement Bill) that grants legal personhood to the Whanganui River including its wetlands and recognizes the special relationship between the Maori iwi (tribes) and the river. “Te Awa Tupua is an indivisible and living whole, comprising the Whanganui River from the mountains to the sea, incorporating all its physical and metaphysical elements.” – Te Awa Tupua Act, Subpart 2, Section 12  
“Te Awa Tupua is a legal person and has all the rights, powers, duties, and liabilities of a legal person.” – Te Awa Tupua Act, Subpart 2, Section 14  
“*Ko au te Awa, ko te Awa ko au*: I am the River and the River is me: The iwi and hapū of the Whanganui River have an inalienable connection with, and responsibility to, Te Awa Tupua and its health and well-being.” – Te Awa Tupua Act, Subpart 2, Section 12  
<http://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html> (Accessed 20 June 2020)

Wetland and climate scientists participating in the SWS Climate Change and Wetlands Initiative and the Ramsar Section (Finlayson et al. 2020) are responding to the global emergencies, the continued deterioration and loss of wetlands, and the rights of Nature movement by proposing a Declaration of the Rights of Wetlands (Davies et al. 2020). By shifting our relationship with wetlands, by recognizing the inherent right of wetlands to exist and to fulfil their natural ecological role as indigenous people have done for millennia, as many scientists and philosophers have done throughout history (Nash 1989), and by recognizing their legal personhood, we are more likely to safeguard the future viability of wetlands, thereby contributing significantly to reversing the climate, biodiversity, and ecological emergencies (Davies et al. 2020).

This shift in our perspective actually restores values and modes of thinking that modernity has typically marginalized. As we reconsider our role and membership in the community of beings that is the Earth community, we reframe and restore our relationships with wetlands. By embracing relational values with Nature, such as reciprocity, gratitude, responsibility, and by acknowledging the personhood of Nature, we remember our integrated and relational presence as a part of Nature, thereby shifting decision-making away from exploitation, depletion, degradation and loss, and towards real conservation, restoration, and re-wilding.

## HOW DOES THE CHARTER MODEL STRENGTHEN THE EFFECTIVENESS AND ACCEPTANCE OF RIGHTS FOR WETLANDS TO ACHIEVE A SAFE CLIMATE AND SUCCESSFUL WETLAND RESTORATION? (W.R. MOOMAW)

The current proposal to declare that wetlands have a fundamental and inherent right to exist can learn from previous declarations that have utilized the charter model. A *charter* is a document that defines the rights, privileges and responsibilities of a specified organization or body. We will examine two examples: the World Charter for Nature (WCN 1982) and the Earth Charter (EC 1999), and determine if either provides a suitable model for declarations of the Rights of Nature.

WCN recognizes the value of Nature and the need to respect it, and delivers a charge to humanity (“*Man*”). The Charter acknowledges that humans will utilize Nature, but should not degrade it, and must maintain and protect species and ecosystems.

“Every form of life is unique, **warranting respect regardless of its worth to man ...**,” and “Mankind is a part of nature and life depends on the uninterrupted functioning of natural systems ...”. It also notes that “Civilization is rooted in nature ...” (EC 1999)

WCN (1982) recognizes that humans are disrupting Nature, “Man can alter nature and exhaust natural resources by his action or its consequences and, therefore, **must fully recognize the urgency of maintaining the stability and quality of nature** and of conserving natural resources.”

Protecting the integrity of Nature is addressed: “Ecosystems and organisms, as well as the land, marine and atmospheric resources that are utilized by man, shall be managed to achieve and maintain optimum sustainable productivity, but not in such a way as to endanger the integrity of those other ecosystems or species with which they coexist.” (WCN 1982).

The Charter describes the need to prevent damage to Nature through planning and appropriate laws and actions. It also reiterates the sovereignty (**rights**) of all nations over their natural systems. It concludes by stating that “each person has a **duty** to act in accordance with the provisions of the present Charter... (and) strive to ensure that the objectives and requirements of the present Charter are met.” It is a remarkable statement of the importance of Nature and recognizes that “to accord other organisms such recognition, **man must be guided by a moral code of action.**” However, **the Charter never directly grants rights to Nature.**

If taken at face value, WCN requires that international treaties like Ramsar and the UN Framework Convention on Climate Change and associated agreements obligate governments to implement effective actions to protect wetlands and the climate system. Unfortunately, the World Charter for Nature is not a binding treaty, but rather an expression

of intention that the global community has failed to meet. The WCN was engraved in bronze tablets that were placed outside the common meeting room of the United Nations General Assembly that endorsed it in 1982.

The Earth Charter is a civil society initiative that has been endorsed by UNESCO and many societal groups including indigenous peoples and some representatives from government including mayors and other officials from 89 countries. It was proposed by Maurice Strong, founding Executive Director of the United Nations Environment Program, who chaired the Rio Earth Summit in 1992 and Mikhail Gorbachev, former President of the Soviet Union. In many ways it anticipates the Sustainable Development Goals and provides a template for more recent proposals for the Green New Deal in the United States and the Green Deal in Europe. The Earth Charter calls for a global order that links environmental conservation with socio-economic cohesion and concern for future generations. It is anthropocentric in that it explicitly calls for rights for humans, but not for Nature. Nature must get along with the good intentions of humans as defined.

“To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny. We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace. Towards this end, it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.” (EC 1999)

More specifically, it calls for ecological integrity and the dignity of all humanity with 16 specific principles beginning with, “Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings.” (EC 1999)

Both of these Charters recognize the essential role of Nature in human well-being and survival, but neither endows Nature with rights. However, each of the Charters contain remarkable statements about the intrinsic value of Nature beyond its utilitarian role for supporting human life and society. Declarations of the Rights of Nature, and the proposed Declaration of the Rights of Wetlands, are the logical ethical step beyond the Charters’ earlier recognition of the inherent worth and value of Nature, regardless of her worth to humans.

## CONCLUDING STATEMENTS

Despite the many efforts over the past 50 years in support of wetland conservation and wise use, these have not been sufficient to achieve national or Ramsar Convention goals to stem the loss and degradation of wetlands. This situation illustrates that “business as usual” is not an option if wetlands are to be restored and maintained. A change

in mindsets, values and approaches is needed if we are to achieve wetland wise use now and in the future.

There is ample evidence that human well-being is closely linked with the condition of wetlands, and that this relationship could better complement existing measures for wetland conservation, protection, restoration and wise use. The framework provided by IPBES that recognizes the interdependence that exists between biodiversity and human health and well-being helps to build a case for recognizing the inherent Rights of wetlands, both to exist and to persist without degradation, and the ethical and legal responsibilities that humans have to uphold these Rights on the wetlands' behalf.

The ingrained assumption that having sufficient capacity is the main route to successful implementation of agreements such as the Ramsar Convention is being questioned. Capacity is clearly a necessary, but not a sufficient factor for implementation. Further, the legitimacy of global approaches to environmental sustainability, and the dominant "western paradigms" within which this is framed, are also being questioned. Revisiting assumptions about governance, mechanisms for implementation and even philosophical world views has the potential to bring about new coalitions of diverse voices, and to illuminate the benefits of expanded paradigms such as the Rights of Nature.

The Rights of Nature movement represents a growing response to this, and a revised view of the Human-Nature relationship. This shift helps to restore values and modes of thinking that were once more powerful but have lately become marginalized. By embracing increasingly articulated relational values with Nature, such as reciprocity, gratitude and responsibility, and by acknowledging the personhood of Nature, people can restore an integrated and relational presence for themselves as a part of Nature rather than humanity existing as something separate, thereby helping to shift decision-making away from exploitation, depletion, degradation and loss, and towards effective conservation, protection, restoration, and nature-based solutions to environmental challenges.

Regional and global scenarios often lack and would benefit from an explicit consideration of the views, perspectives and Rights of Indigenous Peoples and Local Communities who often live in a more intimate relationship with wetland ecosystems and their futures. Recognition of the wisdom, customs, governance, management approaches and values of people with a direct engagement in environmental governance can be an important factor in achieving effective Nature conservation, restoration and sustainable use. This includes "connectedness" which is the idea that knowledge is gained from daily observations of 'what is happening around us, and "collectiveness" which is the awareness that we need

to take more responsibility for one another and to adopt values of collaboration, sharing and reciprocity, including in a wider sense, beyond our own species.

The proposal to declare that wetlands have a fundamental and inherent right to exist (Davies et al. 2020) can learn from previous declarations, such as the models provided by the World Charter for Nature and the Earth Charter, whereby a *charter* is a document that defines the rights, privileges and responsibilities of a specified organization or body. Based on these rights and responsibilities, it is imperative that all peoples declare and enact their mutual responsibilities to one another, to the wider community of life, and to future generations. This includes the ecological integrity of all wetlands and the dignity of all humanity based on a set of specific principles, beginning with: "Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings." ■

## REFERENCES

- Berry, T. 2001. The origin, differentiation and role of rights. Paper presented at the Earth Jurisprudence Conference 21-24 April 2001, Airlie Centre, Warrenton, Virginia, USA.
- Cullinan, C. 2011. *Wild law: A Manifesto for Earth Justice*. Second Edition. Green Books, White River Junction, Vermont, USA. 208 pages.
- Convention on Biological Diversity. 2010. *Decision X/2. Strategic Plan for Biodiversity 2011-2020*. Available at: <https://www.cbd.int/decision/cop/?id=12268>
- Convention on Biological Diversity. 2020. *Zero draft of the post-2020 Global Biodiversity Framework*. CBD/WG2020/2/3. Available at: <https://www.cbd.int/doc/c/efb0/1f84/a892b98d2982a829962b6371/wg2020-02-03-en.pdf>
- Dahl, T. E. 1990. *Wetlands losses in the United States, 1780's to 1980's*. US Department of the Interior, Fish and Wildlife Service. Washington, D.C. 20 pages.
- Dahl, T.E. 2011. *Status and trends of wetlands in the conterminous United States 2004 to 2009*. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. 112 pages.
- Darrah, S.E., Y. Shennan-Farpón, J. Loh, N.C. Davidson, C.M. Finlayson, R.C. Gardner, and M.J. Walpole. 2019. Improvements to the wetland extent trends (WET) index as a tool for monitoring natural and humanmade wetlands. *Ecological Indicators* 99: 294–298
- Davidson, N.C. 2014. How much wetland has the world lost? Long-term and recent trends in global wetland area. *Marine and Freshwater Research* 65: 934–941.
- Davidson, N.C. 2018. Ramsar Convention on Wetlands: Scope and Implementation. In C. M. Finlayson, M. Everard, K. Irvine, R.J. McInnes, B.A. Middleton, A.A. van Dam, and N.C. Davidson (eds.). 2016. *The Wetland Book I: Structure and Function, Management and Methods*. Springer Publishers, Dordrecht, Netherlands. pp. 451–458.
- Davidson, N.C., L. Dinesen, S. Fennessy, C.M. Finlayson, P. Grillas, A. Grobicki, R. McInnes, N. Murray, and D.A. Stroud. 2020a. Trends in the ecological character status of wetlands reported to the Ramsar Convention. *Marine and Freshwater Research* 71: 127–138.
- Davidson, N.C., L. Dinesen, M.S. Fennessy, C.M. Finlayson, P. Grillas, A. Grobicki, R.J. McInnes and D.A. Stroud. 2020b. Adequacy of reporting on change in wetland ecological character to the Ramsar Convention on Wetlands by Contracting Parties. *Marine and Freshwater Research* 71: 117–126.



- Davies, G.T., C.M. Finlayson, D.E. Pritchard, N.C. Davidson, R.C. Gardner, W.R. Moomaw, E. Okuno, and J.C. Whitacre. 2020. Towards a Universal Declaration of the Rights of Wetlands. *Marine and Freshwater Research* doi.org/10.1071/MF20219
- De Groot, R.S., M.A.M. Stuij, C.M. Finlayson, and N. Davidson. 2006. *Valuing wetlands: guidance for valuing the benefits derived from wetland ecosystem services*. Ramsar Technical Report No. 3/CBD Technical Series No. 27. Ramsar Convention Secretariat, Gland, Switzerland & Secretariat of the Convention on Biological Diversity, Montreal, Canada.
- Demos, T.J. 2015. *Rights of Nature: The art and politics of Earth Jurisprudence*. Available at: <https://cpb-us-e1.wpmucdn.com/sites.ucsc.edu/dist/0/196/files/2015/10/Demos-Rights-of-Nature-2015.compressed.pdf>
- De Ville, G. 2019. Why should we care about Indigenous knowledge to save the world? Cobra Collective. Egham, UK. TW20 0EX. Available at <https://cobracollective.org/concepts/why-should-we-care-about-indigenous-knowledge-to-save-the-world/>
- Díaz, S., S. Demissew, C. Joly, W.M. Lonsdale, and A. Larigauderie. 2015. A Rosetta Stone for Nature's benefits to people. *Plos Biology*: 1–8.
- Earth Charter. 1999. Available at [https://earthcharter.org/read-the-earth-charter/download-the-charter/?doing\\_wp\\_cron=1592865102.2636520862579345703125](https://earthcharter.org/read-the-earth-charter/download-the-charter/?doing_wp_cron=1592865102.2636520862579345703125)
- Fennessy, M.S., A. Rokosch, and J. Mack. 2008. Decomposition and nutrient cycles in natural and restored wetlands: a functional analysis. *Wetlands* 28: 300-310.
- Finlayson, C.M. and R. D'Cruz. 2005. Inland water systems. In R. Hassan, R. Scholes, and N. Ash, (eds.). *Ecosystems and Human Well-being: Current State and Trends: Findings of the Condition and Trends Working Group*. Island Press, Washington, DC. pp. 551-583.
- Finlayson, C.M., G. Davies, W.R. Moomaw, and N. Davidson. 2020. A Society of Wetland Scientists climate change and wetlands initiative. *Wetland Science & Practice* 37(3): 158-161.
- Fox, E. 1986. Letter to Richard G. Lugar, Chairman, Committee on Foreign Relations, United States Senate. 24 July 1986. Doc. 99-28, Convention on Ramsar Wetlands of International Importance. U.S. National Archives, Washington, D.C.
- Gardner, R. C. and N.C. Davidson. 2011. The Ramsar Convention. In B. Lepage (ed.). *Wetlands: Integrating Multidisciplinary Concepts*. Springer: Dordrecht, Netherlands. pp. 189-203.
- Haas, P. M. 2015. *Epistemic Communities, Constructivism, and International Environmental Politics*. Routledge, Abingdon, UK. 420 pages.
- Horwitz, P. and C.M. Finlayson. 2011. Wetlands as settings: ecosystem services and health impact assessment for wetland and water resource management. *BioScience* 61: 678-688.
- IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services). 2018. *Regional assessment report on biodiversity and ecosystem services for the Americas of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services: Summary for policymakers*. IPBES secretariat, Bonn, Germany.
- IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services). 2019. *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. IPBES secretariat, Bonn, Germany.
- Kauffman, C.M. and P.L. Martin. 2018. When rivers have rights: case comparisons of New Zealand, Colombia, and India. International Studies Association Annual Conference. April 4, 2018. San Francisco, USA.
- Kimmerer, R.W. 2013. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Milkweed Editions, Minneapolis, Minnesota, USA. 408 pages.
- Koons J.E. 2012. At the tipping point: defining an Earth jurisprudence for social and ecological justice. *Loyola Law Review* 58: 349-390.
- Matthews, G.V.T. 1993. *The Ramsar Convention on Wetlands: its history and development*. Ramsar Convention Bureau, Gland, Switzerland.
- McInnes, R.J., N.C. Davidson, C.P. Rostron, M. Simpson, and C.M. Finlayson. 2020. A citizen science state of the world's wetlands survey. *Wetlands*. <https://doi.org/10.1007/s13157-020-01267-8>
- MEA (Millennium Ecosystem Assessment). 2005. *Ecosystems and Human well-being: Wetlands and Water Synthesis*. World Resources Institute, Washington, DC.
- Mitsch, W.J. and M.E. Hernandez. 2013. Landscape and climate change threats to wetlands of North and Central America. *Aquatic Sciences* 75: 133-149.
- Nash, R.F. 1989. *The Rights of Nature, a History of Environmental Ethics*. The University of Wisconsin Press, Madison, Wisconsin, USA. 320 pages.
- Neubauer, S.C. 2014. On the challenges of modeling the net radiative forcing of wetlands: reconsidering Mitsch et al. (2013). *Landscape Ecology* 29: 571-577.
- O'Donnell, E.L. and J. Talbot-Jones. 2018. Creating legal rights for rivers: Lessons from Australia, New Zealand, and India. *Ecology and Society*: 23, 7.
- Pecharroman, L.C. 2018. Rights of Nature: rivers that can stand in court. *Resources* 7: 13.
- Pittock, J., C.M. Finlayson, D. Roux, A. Arthington, J. Matthews, H. Biggs, E. Blom, R. Flitcroft, R. Friend, I. Harrison, V. Hermoso, W. Junk, R. Kumar, S. Linke, J. Nel, C. Nunes da Cunha, A. Pattnaik, S. Pollard, W. Rast, M. Thieme, E. Turak, J. Turpie, L. van Niekerk, D. Willems, and J. Viers. 2014. Chapter 19: Managing fresh water, river, wetland and estuarine protected areas. In G.L. Worboys, M. Lockwood, A. Kothari, S. Feary, and I. Pulsford (eds). *Protected Area Governance and Management*, ANU Press, Canberra. pp. 569-608.
- Ramsar Convention on Wetlands. 2018. *Global Wetland Outlook: State of the World's Wetlands and their Services to People*. Ramsar Convention Secretariat, Gland, Switzerland.
- Ramsar Convention. 2020. Ramsar Sites Information Service. Available at <https://rsis.ramsar.org/>
- Simpson, M., N. Davidson, G. Davies, M. Finlayson, W.R. Moomaw, D. Pritchard, M.S. Fennessy, and J. Whitacre. 2020. Upcoming symposium: a Universal Declaration on the Rights of Wetlands – shifting the paradigm to restore the human-wetland relationship in support of wetland restoration, conservation and wise use. *Wetland Science & Practice* 37(2): 82-84.
- Stone, C.D. 2010. *Should Trees Have Standing? Law, Morality, and the Environment*. Oxford University Press, Oxford, UK. 248 pages.
- Trisos, C.H., C. Merow, and A.L. Pigot. 2020. The projected timing of abrupt ecological disruption from climate change. *Nature* 580: 496-501.
- Van Deveer, S.D. 2000. Changing course to protect European seas: lessons after 25 years. *Environment* 42: 10–26.
- Van Deveer, S. and G. D. Dabelko. 2001. It's capacity, stupid: international assistance and national implementation. *Global Environmental Politics* 1: 18-29.
- Wackernagel, M. and B. Beyers. 2019. *Ecological Footprint: Managing Our Biocapacity Budget*. New Society Publishers, Philadelphia, Pennsylvania, USA. 338 pages.
- World Charter for Nature 1982. Available at [https://sedac.ciesin.columbia.edu/entri/texts/world\\_charter\\_for\\_nature\\_1982.html](https://sedac.ciesin.columbia.edu/entri/texts/world_charter_for_nature_1982.html)
- Zedler, J.B. and N. Miller 2018. Wetland Restoration. In C. M. Finlayson, M. Everard, K. Irvine, R.J. McInnes, B.A. Middleton, A.A. van Dam, and Davidson, N.C. (eds.). 2018. *The Wetland Book I: Structure and Function, Management and Methods*. Springer Publishers, Dordrecht, Netherlands. pp. 165-176.