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Salmon in the Net of Indra: a Buddhist View of Nature and Communities

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ABSTRACT

The rapid decline of salmon over the last hundred years in the western United States has occurred to a large extent because of the way people have viewed salmon. In this paper, we briefly examine several views of salmon and offer another view, one based on enduring themes of Buddhist thought and practice. We examine the understanding of the interdependence and unity of all things as the common foundation of both Buddhism and ecology. Finally, we provide guidelines for applying this understanding to the conservation of salmon, as well the relationship of humans to 'nature' in general.

Salmon are the 'totem' of the peoples of the North Pacific Rim. Once nearly every river and stream from southern California to Kyushu Island in southern Japan supported one or more runs of Pacific salmon. Salmon were the focus of the ecologies, economies, and communities of the native people throughout this region. These fish also captured the imagination of the Euroamericans when they moved into western North America. They graced the salmon with a variety of names that indicate the beauty and diversity of these fish: king, tye, chinook, coho, silver, red, blueback, sockeye, chum, dog, pink, and humpback.

The demise of salmon and trout has become a conservation crisis of enormous biological, economical, and political significance (NRC 1996). For example, in the mid-1800s, some 10-16 million Pacific salmon returned to spawn each year in the Columbia River Basin. By the 1980s this number had dwindled to approximately 500,000 wild salmon (NRC 1996). This number has dropped substantially in the last few years. In Japan, wild salmon have been virtually eliminated and replaced by enormous numbers of hatchery reared salmon (Kaeriyama 1989).

The importance of salmon to the North Pacific Rim is much more than symbolic. The salmon are an ecological keystone link between the ocean, fresh water, and terrestrial ecosystems. The return of salmon and the food resources and nutrients from the ocean is a critically important link in the life cycles of many species throughout the North Pacific Rim. For example, at some times of the year up to 90% of the nitrogen in benthic algae from Sashin Creek in southeast Alaska is derived from the rotting carcasses of spawned-out pink salmon (Levy 1997). The severe depletion of salmon is expected to have major effects on many species of wildlife and thus on freshwater and terrestrial communities throughout the Pacific Rim (Willson and Halupka 1995).

The rapid decline of salmon over the last hundred years has occurred to a large extent because of the way people have viewed salmon. Native cultures and salmon coexisted as companions in the universe for thousands of years. By contrast, the current dominant cultures in Japan, the United States, and Canada have viewed salmon as a commodity to be harvested. The rapid decline of salmon has resulted from this view of salmon as a commodity, rather than as a fellow species.

In this paper, we will briefly examine several views of salmon and offer another view, one based on the enduring themes of Buddhist thought and practice. We will examine the understanding of the interdependence and unity of all things as the common foundation of both Buddhism and ecology. Finally, we provide guidelines for applying this understanding to the conservation of salmon, as well the relationship of humans to 'nature' in general.

We have written this paper from our own perspective as academically trained evolutionary ecologists and practising Buddhists. We do not intend to present 'the' view of humans and nature for such a rich and historically diverse world religion as Buddhism. Our understanding is largely inspired by Thich Nhat Hanh and his practice of Zen Buddhism (for example, see Nhat Hanh 1988). The environmental teachings and practice of Thich Nhat Hanh are based on Hua-yen Buddhism (see Cook 1977) and its primary text, the Avatamsaka (Flower Ornament) Sutra (Cleary 1990). Other Buddhist traditions may treat the issues discussed here differently. More general discussions of the historical and textual basis of the applications of Buddhist teachings to ecology can be found in Callicott (1994a), Batchelor and Brown (1992), and Harris (1995).

HOW DO WE 'SEE' SALMON?

Native cultures' view: Salmon as sacred gift

The native cultures around the North Pacific Rim, from the Yurok of California to the Ainu of Japan, co-existed and co-evolved with salmon over the last 5,000 years as the glaciers retreated and both people and Pacific salmon recolonised at

the same time. The permanent villages of these peoples corresponded with preferred fishing sites. Native cultures developed a deep and coherent connection to the salmon that were viewed as fellow and important beings in the universe (Brown 1990).

Almost all Native peoples from California to Japan celebrated some version of the first salmon ceremony in which the first salmon caught was honored as a respected guest before it was eaten. Salmon were a gift and were treated as sacramental food. The appropriate attitude was to feast on the salmon in gratitude and repay its generosity with respect. The intention was that when the salmon spirits returned to their watery villages, they would report that their gifts had been properly honoured (Fobes et al. 1994).

There is a tendency to assert that 'indigenous' or 'traditional' peoples inherently possess special wisdom about the earth and how to live on it. Whether they do or not, these cultures did co-exist with an abundance of salmon throughout the North Pacific Rim for thousands of years. The current catastrophic demise of Pacific salmon began approximately a hundred years ago with the rise to dominance of western culture and technology, especially in North America.

Comparison of the fate of the Atlantic salmon provides some insight into causes of the decline of Pacific salmon. Atlantic salmon occurred widely throughout Europe until the 19th century when populations began to disappear from many of the major rivers (Shearer 1992). Historically in Europe, the species was thought to have mystical qualities because of its ability to appear and disappear at will and its ability to surmount substantial obstacles during its migrations (Ibid.). The comparable time frame of widespread decline of Atlantic and Pacific salmon suggests that the major direct factor for the decline of salmon has been the advance of industrial technology and the growth of the human population.

Euroamerican view: Salmon as commodity

Salmon have been viewed by the decision making bodies of the Euroamerican culture primarily as a commodity. Their value has been measured in dollars and their fate determined by economic trade-offs. The U.S. Commissioner of Fisheries Frank T. Bell clearly articulated this view in a 1937 article:

A new chapter is being written in the history of the age old struggle for the mastery of natural forces. Man rides the winds, tames the lightning, harnesses the tides, struggles with floods, and now the subjugation of a hitherto untamed giant of waterways, the Columbia River, is about to become an accomplished fact. Once fettered, this mighty stream will make possible the realisation of power and irrigation on a titanic scale. But man's victories over Nature are often won at great cost. As always when we change the face of the land, there arises the problem of protecting

the wild life which is adjusted to the old, slow-changing order. The development of the Columbia River for power and agriculture imperils an ancient industry, the salmon fisheries.

Salmon were, and are, seen as a necessary casualty in the great victory of 'man' over 'Nature'. But it was not the loss of salmon that concerned Bell, it was the demise of the salmon fishing industry.

The view of salmon as a commodity pervades the conservation struggles with salmon today. Rep. Helen Chenoweth (R-ID) attended 'endangered salmon bakes' during her campaign in 1994 and told prospective voters that she did not take the endangered status of salmon seriously. 'How can I when you go in and you can buy a can of salmon off the shelf in Albertsons?' (Miller 1994). Thus, as long as salmon are available to buy as a commodity we should not be concerned with their conservation. 'I'd much rather transplant species and have people go where they can see them than transplant communities of people because they can't make a living' says Chenoweth (Foster 1995).

This view has not been restricted to salmon. Fisheries around the world have collapsed during the last century because of overexploitation (May 1994). This extinction sometimes is the 'best' outcome from a strictly economic view. In terms of financial return, the optimal harvesting strategy for species with relatively low growth rates is to harvest the stock to extinction and invest the realised capital where returns are higher (Clark 1990).

The herring fishery in Kachemak Bay, Alaska, provides a graphic example of this. Historically, millions of herring returned to Kachemak Bay in the spring and were fed upon by beluga whales, sea gulls, cormorants, murre, surf scoters, and bald eagles. A commercial fishery began in Kachemak Bay in 1911 and by 1930 the fishery was gone (Klein 1987: 67):

Jack English vividly recalls the abhorrent waste of herring in Kachemak Bay. Fish offal accumulated under the shore salteries and on the tidal flats, so much so that tides could no longer flush it out. The beautiful lagoons, once choked with hoards of healthy herring, were choked now with their rotting remains, decaying bodies that robbed oxygen from the water, killed the beds of eel grass and other vegetation so necessary for spawning, and polluted the sea. The befouling of bay beaches affected everyone. But as Jack said, 'When the beach was smelling, the cash register was ringing'. In Kachemak Bay, where no steady, reliable economic base had existed previously, the ringing of the cash register was sweet music for almost twenty years.

A Buddhist view: Salmon as symbol of interdependence

The Buddha taught that all beings and phenomena are interdependent (Rahula 1959). Beings, or any phenomena, do not arise of themselves, but are dependent on other beings or phenomena for their own existence. This view of interdependence is given in the phrase 'pratitya samutpada', which can be translated as

'dependent co-arising' (Cooper 1985). Thich Nhat Hanh calls this 'interbeing' (Nhat Hanh 1987a).

The spectacular migrations of salmon make it easy to see the interdependent relationship between salmon and the entire North Pacific. Sockeye salmon from the Snake River in Idaho emerge from the gravel a mile above sea level. They spend two years in Redfish Lake and then migrate 1,000 miles past many of the principal cities of the Northwest to the ocean where, they spend two or three years. In the ocean, sockeye salmon undergo long feeding migrations; some sockeye salmon undertake annual feeding migrations in the ocean of over 5,000 miles. The sexually mature adults return to the mouth of the Columbia River, retrace their journey of 1,000 miles upstream to their natal stream, and spawn (Burgner 1991).

Salmon weave a tapestry through the landscape from high in the mountains to the middle of the Pacific Ocean; this web connects the 'ecologies, economies, communities' of the region. Salmon are connected to virtually everything that we do. This paragraph was written on a computer using power generated by hydroelectric dams on the Columbia River. The paper on which you are reading this may have been produced from trees harvested from a salmon watershed.

Looking deeply into the salmon one can see the entire universe. The ocean is there. The salmon lived most of its life in the ocean; without the ocean there would be no salmon. There is also a cloud in the salmon. Without a cloud, there would be no water for the ocean. The sun is also present; without sunshine the life forms that supported the salmon would not have existed. And if you continue to look deeply you will see that everything is in the salmon. The salmon was caught by a fisherman; the wheat that became the bread for the fisherman to eat is in the salmon. The fishing boat was powered by fossil fuel; plants that fed the dinosaurs 200 million years ago were transformed into that fuel.

According to Buddhism, there is nothing that does not have some relationship to this salmon. The salmon is made of non-salmon elements. The ocean is a non-salmon element; a cloud is a non-salmon element; sunshine is a non-salmon element. The salmon is said to be empty of a 'separate-self'. 'Emptiness' in this sense means that the salmon is full of everything, the entire cosmos. If you look deeply enough, you can see the entire universe in this salmon.

This concept is explained in elaborate detail in the Avatamsaka Sutra, the fundamental text of Hua-yen Buddhism (Cleary 1990). 'The ordinary view is that people think and experience in terms of distinct, separate entities, while Hua-yen conceives of experience in terms of the relationships between these same entities. It is simply a question of fundamental, basic reality; is it separate parcels of matter (mental objects) or is it relationships?' (Coom 1977: 8).

The Avatamsaka Sutra illustrates this interdependence with an elaborate image. The Jewel Net of Indra stretches infinitely in all directions. In each of the knots of the net there is a glittering jewel. All of the other jewels are reflected in each individual jewel, and each jewel reflected is also reflecting all of the other

jewels. The Hua-yen school has been fond of this image of a cosmos in which there is an infinitely repeated interrelationship among all members of the cosmos. This view is one of simultaneous mutual identity and mutual intercausality (Cook 1977).

ECOLOGY AND BUDDHISM

Interbeing

Ecology and Buddhism share a common primary theme of connections and interdependence among all living creatures. This interdependence has two dimensions: time and space. In the time dimension, all species and individuals are connected by their evolutionary ancestry. In the space dimension, all species and individuals alive today are connected by ecological processes and relationships.

The temporal (evolutionary) dimension of life began on the Earth over three billion years ago. The evolutionary lineages leading to salmon and humans diverged from a common ancestor of most vertebrates approximately 400 million years ago. Thus, salmon and humans have shared over 80% of their evolutionary history. In the broad evolutionary view, we literally are the brothers and sisters of salmon; we are much more closely related to salmon than we are to our more distant cousins, the insects, or to other tribes, such as plants.

The recent fantastic advances in our knowledge of the molecular basis and unity of life have reinforced this shared kinship and identity. DNA sequences that code for essential proteins in different species have been conserved over amazingly long periods of evolutionary time. For example, cytochrome-c is a protein essential to cellular metabolism in all animals and plants. This molecule is made up of 104 amino acids in vertebrates; nearly 85% of these amino acids are identical in humans and those fish species that have been examined (Nei 1987). Thus, this molecule has changed very little during the 400 million years that humans and salmon have followed separate evolutionary paths.

A deep understanding of these relationships is recognised and reinforced in the ceremonies of some forms of Buddhism. Thich Nhat Hanh (unpublished) has written the following passage to be contemplated as part of a ceremony called 'Touching the Earth':

My spiritual ancestors and my blood ancestors, my spiritual descendants and my blood descendants are all part of me. I am them and they are me. I do not have a separate self. All exist as part of a wonderful stream of life which is constantly moving.

Evolution also shapes relationships between organisms. Predators and prey are clearly shaped by these evolutionary forces. Wolves and mountain lions, for

example, are responsible for the fleetness and grace of deer; and deer are responsible for the ferocity and stealth of their predators. Insect-eating birds are responsible for the beautiful camouflage of moths; and moths in their camouflage are responsible for the sharp vision of birds.

Parasites and their hosts also can evolve relationships of mutual dependence. In fact, parasite-host relationships that begin as harmful to the host and beneficial to the parasite seem often to evolve into relationships that are mutually beneficial to both. Lichens, reef-building corals, and the nitrogen-fixing bacteria that live in the root-nodules of legumes may all be examples of this co-evolution of co-operation; as are the chloroplasts and mitochondria found in the cells of all higher plants or animals.

Altruistic behaviour can also evolve. Altruistic animals behave in ways that appear to involve 'self' sacrifice, even a sacrifice of individual reproductive fitness. For example, dolphins have been observed to assist fellow individuals that have been harpooned to the surface so that the injured individual can breathe; such behaviour increases the chances of 'helpers' being harpooned themselves (Wilson 1975). Such behaviours can evolve because 'self' sacrifice in the present may increase the overall fitness of their genes – the representation of their genes in future generations. Thus, animal behaviour and its evolution is driven by a more expansive 'view' of the self than a 'self' bounded by a single individual organism.

In the spatial (ecological) dimension, all species are connected by ecological processes. Nutrient cycles show this most directly. When Rep. Chenoweth eats a canned salmon, she and the salmon become one. As animals, we take in oxygen from the air in order to release the energy from our food, and in the process we create and need to get rid of carbon dioxide; plants, on the other hand, absorb vast quantities of carbon dioxide in the process of photosynthesis, and release oxygen as a waste product.

There is interdependence, a complementarity, between plants and animals. Food chains and food webs, the ecological descriptions of the flow of energy through ecosystems, also show interdependence. A food-web diagram of a species-rich ecosystem like a tropical forest or coral reef is a beautiful depiction of the Net of Indra. 'Ecological thinking... requires a kind of vision across boundaries. The epidermis of the skin is ecologically like a pond surface or a forest soil, not a shell so much as a delicate interpenetration. It reveals the self ennobled and extended rather than threatened as part of the landscape and the ecosystem, because the beauty and complexity of nature are continuous with ourselves' (Devall 1988: 41).

These ecological relationships in the spatial dimension are also recognised in the 'Touching the Earth' ceremony (Thich Nhat Hanh, unpublished):

I am one with the wonderful pattern of life which radiates out in all directions. ... I am the frog swimming in the pond and I am also the snake who needs the body of the frog

to nourish its own body. ... I am the forest which is being cut down. I am the rivers and air which are being polluted.

Knowing versus living

Ecology and Buddhism share a common recognition of the interdependence of all life. Such an understanding is, in a sense, the end product of the scientific process to gain knowledge of the world. That is, science is a way of knowing. However, knowing intellectually that we are interdependent with salmon is not enough. It is clear from looking at the behaviour of ourselves and our friends that scientific knowledge alone is not sufficient to change our behaviour. In contrast, Buddhism is a way of gaining deep understanding so that our style of living changes naturally without special effort.

Many who live in the affluent countries of the world know their lifestyle is destructive and cannot be sustained without causing great damage. Yet even those who best understand this relationship between our lifestyle and environmental damage continue our wasteful and consumptive ways. We have come to believe that our affluence is central to our personal happiness and well being. Our well intended attempts to live a more simple and frugal life will fail as long as we experience these attempts as painful and a sacrifice (Claxton 1994).

The intellectual knowledge of interdependence must be 'realised' at a deep level if it is going to influence our daily behaviour. Knowing that burning fossil fuel to power a car five blocks to the store is wasteful and environmentally harmful is not sufficient. We will continue to drive rather than ride a bike most of the time as long as we experience taking a bike as a personal sacrifice. We will not become regular bike riders until we have rejected the concept of a separate and independent existence at a deep level so that we feel the harm associated with consumptive behaviour rather than just know it is harmful.

Buddhism works towards this realisation that self and world are not dual through meditation and the cultivation of mindfulness:

If we want to continue to enjoy our rivers — to swim in them, walk beside them, even drink their water — we have to adopt the non-dual perspective. We have to meditate on being the rivers so that we can experience within ourselves the fears and hopes of the river. If we cannot feel the rivers, the mountains, the air, the animals, and other people from within their own perspective, the rivers will die and we will lose our chance for peace. (Nhat Hanh 1991: 105)

The 'Touching the Earth' ceremony described in the previous section is one Buddhist form designed to reinforce this understanding at a deep level.

The cultivation of mindfulness is a time honoured method of Buddhism to aid our realisation. Mindfulness is a sharpened awareness of the immediate present in which we strive to look deeply into our every action.

It is precisely the lack of mindfulness that is responsible for so much of the violence and suffering in the world today. ... The aware person sees the indivisibility of existence, the deep complexity and interrelationship of all life, and this creates in him a deep respect for the absolute value of things. It is out of this respect for the worth of every single object, animate as well as inanimate, that comes the desire to see things used properly, and not to be heedless or wasteful or destructive. (Kapleau 1995)

We turn light switches on many times throughout our daily life without awareness. Mindfully performing this act requires awareness of the physical sensation of touching and moving the switch. In addition, we become aware of the effects of this action. The connection made when a switch is turned in the Pacific northwest of the United States connects the light bulb with electrical power generated by a dam on the Columbia River. These dams and the long pools behind them have blocked or hindered the return of salmon to their spawning grounds. In addition, the water flow in the Columbia River is managed by the Bonneville Power Administration to coincide with the peak of electrical demands. Historically, the downstream migration of salmon coincided with the seasonal peak flows of the river. The downstream survival of salmon has been greatly reduced by the changing of seasonal patterns of flow to match the electrical demands of consumers.

Gathas are short verses that are recited to bring the energy of mindfulness to each act of daily life. They are a traditional form of Zen practice used to increase the power of our mindfulness (Nhat Hanh 1995: 24). Cultivating such constant awareness of our actions is important for our realisation that we and the rest of the world are not separate. For example, the following gatha is appropriate for turning on a light switch in the Pacific Northwest of the United States:

Turning on the light
I am aware that this power
Comes from the home of the salmon

HOW DO WE 'SEE' OURSELVES?

Transformation: Ego-self to eco-self

Most forms of Western ethics view persons as independent individuals. But the Buddhist 'dependent co-arising' view does not see persons in that way. Ecology and evolutionary biology does not either. The ethics that are inspired by these differing views — the ego-self versus the Buddhist/ecological-self views — are quite different.

Aldo Leopold (1949) was perhaps the first to argue from an ecological perspective for this broader view of self and community. He believed that ethics depend upon the premise that the individual is a member of a community of

interdependent parts. His 'land ethic' enlarged the concept of this community to include 'soils, waters, plants, and animals'.

Compassion for all beings is the logical consequence of the Buddhist principles of dependent arising, emptiness, and inter-relatedness. In a world in which all phenomena, including all living beings, are completely interdependent, the question of selfish and unselfish acts takes on a different meaning. What we traditionally think of as selfish acts would be seen as acts that grow out of a narrow, and false, view of 'self'. Given a widened view of the self as one tiny jewel in the vast Net of Indra, no act is without consequences for that self. What we do to nature we do to ourselves. Joanna Macy explains this change in ethical perspective well:

I am impatient with the notion that ethical action is something added on to one's concept of what reality is or what the self is – added on like so many shoulds and oughts. In the Dharma there are no oughts. They disappear in the realisation of dependent co-arising. Instead of commandments from on high, there is the simple, profound awareness that everything is interdependent and mutually conditioning -- each thought, word and act, and all beings, too, in the vast web of life. Once there's insight into that radical interdependence, then certain ways of living and behaving emerge as intrinsic to it. (Cooper 1985)

It is interesting to compare this Buddhist philosophical perspective with that of eco-philosopher Arne Naess: 'We need environmental ethics, but when people feel they unselfishly give up, even sacrifice, their interest in order to show love for nature, this is probably in the long run a treacherous basis for conservation. Through identification they may come to see their own interest served by conservation, through genuine self-love, love of a widened and deepened self.' (Naess, quoted in Devall 1988: 43).

Intrinsic versus instrumental value

Environmental ethics has struggled with the question of whether efforts to conserve biodiversity should be based upon instrumental or intrinsic (inherent) value (for instance, Callicott 1994b). This dichotomy does not exist from a Buddhist view. If one accepts the radical interdependence described above, what we do to nature, we do to our (eco)selves. Thich Nhat Hanh (1985: 52) has expressed this view as follows:

Man is an animal, part of Nature. But he has singled himself out from the rest of Nature. He classifies all other animals and living beings as Nature, as if he himself were not a part of it. He then poses the question, 'How should I deal with Nature?' Why, man should deal with Nature the way he should deal with himself! He should not harm himself, he should not harm Nature. Harming Nature is harming himself, and vice versa. If he knew how to deal with himself and with his fellow humans, he

would know how to deal with Nature. A person, human-kind, and Nature are inseparable. Therefore, by not caring properly for one of these three, man harms all three.

Buddhist teachers like Thich Nhat Hanh would undoubtedly say that we should not destroy salmon runs in return for monetary profit for the same kind of selfish reason we should not cut off and sell our own kidney. Seen from the 'dependent co-arising' perspective of Buddhist thought, our kidney is no more or less a part of our true 'self' than salmon are; in our own 'self'-interest we should equally seek to protect both.

In this view, an ethical distinction between 'intrinsic' and 'instrumental' value has no meaning. Rather than denying that we want to save all species because of their instrumental value, we should accept David Ehrenfeld's challenge (Ehrenfeld 1988) and be willing to defend the utility of all 600,000 species of beetles! If we are not willing to do so, we are denying the fundamental reality of ecological interdependence and 'systems' science, and accepting a false view of the 'self'. Salmon are too useful to us – they are us – to let them become endangered or extinct!

This perspective has been criticised as leading to a form of moral vacuity. It has been argued that the proposition that 'all things are equally valuable' leads to the view that 'everything is devoid of value' (Harris 1995). However, there are moral problems and dangers with introducing the notion of a hierarchy of beings based on intrinsic value (Rockefeller 1997). What criteria should be used to rank intrinsic value? There is danger that the notion of a hierarchy of intrinsic value of species can lead to the view of superior worth of certain people based upon their gender, race, or religion.

Rockefeller (1997) asserts that the ethics of our actions towards life should drop all consideration of 'degrees of intrinsic value'. Rather, we should focus on the specifics of the situation that we are facing and employ the basic principles of intelligent compassion to minimise pain and suffering and preserve the welfare of the whole. He argues that there is no need to introduce a consideration of degrees of intrinsic value because it is an unnecessary rationalisation.

Radical interdependence

When it comes to actions and lifestyles, there is a negative and a positive side to a world of total interdependence. On the negative side, anything that a person does wrong affects the whole system. Our actions have a global reach. When we drive gas guzzling cars, don't hang our clothes in the sun to dry, or don't recycle our paper, it affects the street-dwellers of Calcutta, and will come back around to affect us. Eating bananas, tuna, or fast-food hamburgers influences the life-potential of other beings, both human and non-human, around the globe. But the positive side of total interdependence is that when we do something right, no

matter how small, it also sends ripples of healing throughout the whole system. So hanging out our clothes to dry, taking the bus, and growing an organic garden will help to prevent India and Pakistan from eventually having a nuclear war, and will help feed hungry children in the Sahel of Africa. Working for social justice will help save salmon.

These conclusions are controversial and difficult to substantiate. It may be impossible to demonstrate a convincing direct connection between social justice and salmon conservation. Nevertheless, the total interdependence described by the Buddhist phrase 'dependent co-arising' and the ecological principle that all things are connected challenges us to assume that there are connections between our actions and the wider world, and to look for them. It is a working hypothesis that everything we do affects everything else, unless demonstrated otherwise. How can working to save the black-footed ferret help prevent nuclear war? Can saving endangered sea turtles help to solve the debt crisis of developing nations? The Buddhist perspective challenges us to find the connections in each of these, and all other, cases.

Finally, in Buddhism, a narrow view of the self as something separate, apart, and alone, is seen as ignorance of the true nature of reality. This ignorance is the cause of suffering – and of greed, fear, hatred, and lack of compassion. The Buddhist view challenges us to take a wider, truer view of self – the larger self is the Net of Indra, the 'dependent co-arising' that is the nature of reality. Buddhism suggests that until we change our view of self in relation to the world, we will be fearful, greedy, and competitive; and only when we adopt a wider view of self can ecological and social harmony grow out of compassion for all creatures.

FINDING OUR WAY HOME

The Bodhisattva ideal

The radical interdependence that is a central precept of Buddhism – and a central tenet of ecology and evolutionary biology also – leads, upon further reflection, to the view that nothing can be finally accomplished by individuals alone. The notion of escaping the pain and suffering of the world into nirvana, or enlightenment, is seen as a delusion caused by the narrow, and false, view of the individual self. In Mahayana Buddhism, at least, this has led to the view that until all beings are liberated, or enlightened, none can ultimately be. This gives rise to the idea, or ideal, of the bodhisattva.

A bodhisattva is a person who reaches a degree of enlightenment in which he or she realises the truth of dependent co-arising; that person then sees that the only true task, the 'real work' (to use a phrase of Gary Snyder's), is to work to help all other beings achieve enlightenment also. Robert Aitken explains this as

follows: 'More intimate than sisters and brothers, as those words are ordinarily understood, each of us is kin by our fundamental sameness and equality to everyone and everything else. With this realisation, the world of the Bodhisattva appears' (Aitken 1978).

Enlightenment is the recognition of the unity of all life. This view of total interdependence leads toward the bodhisattva ideal: we are all in this together, and it will not help to work for anything less than the good of all beings.

The ethics of total acceptance

In the Net of Indra, the world of dependent co-arising, acceptance is total – acceptance of both violence and compassion. Thich Nhat Hanh wrote a poem called 'Please Call Me By My True Names'. He describes the inspiration for this poem in his book *Being Peace* (Nhat Hanh 1987b). He and his co-worker Sister Phuong correspond with many Vietnamese refugees, including many 'boat people' – refugees trying to escape from Vietnam by sea.

Their work with refugees involves them in many tragic cases. Thai pirates often prey on the overloaded boats of the boat people, robbing them and often raping the women on the boats, including young girls. Thich Nhat Hanh says that this poem was written, following a long meditation, after receiving a letter describing how a twelve year-old girl had thrown herself overboard and drowned after being raped by a Thai pirate.

When you first learn of something like that, you get angry at the pirate. You naturally take the side of the girl. As you look more deeply you will see it differently. If you take the side of the little girl, then it is easy. You only have to take a gun and shoot the pirate. But we cannot do that. In my meditation I saw that if I had been born in the village of the pirate and raised in the same conditions as he was, I am now the pirate.... After a long meditation, I wrote this poem. In it, there are three people: the twelve-year-old girl, the pirate, and me. Can we look at each other and recognise ourselves in each other? The title of the poem is 'Please Call Me By My True Names', because I have so many names. When I hear one of these names, I have to say, 'Yes'.

Our true home

Buddhism speaks often about awakening and finding our true self, sometimes called our true home. Our true home is the realisation of non-self and non-duality, the unshakable conviction that everything is intrinsically one.

In time, feelings that had risen from an intellectual acceptance or a nebulous impression of oneness become a sure knowledge of the unity of all life. With spiritual awakening comes the realization that we are not just a tiny speck in the universe, two hands, two legs, a face, and a mind, but that we embrace all existence. In other words,

awakening brings the realization that we are no less than the universe itself (Graef 1990).

In this paper, we have tried to see this by looking deeply into problems of salmon conservation. Buddhism speaks of 84,000 Dharma doors, or entrances to reality (Nhat Hanh 1995: 52). Likewise, there are 84,000 species that we could have used to focus the discussions of this paper. However, there is something especially appropriate about using salmon, with their spectacular life histories and homing migrations, to find our own way home. In closing, we would like to echo the moving words of Natalie Fobes (Fobes et al. 1994: 27):

I hope I never live in a time when my home streams lie silent and barren, when I must travel to remote reaches of Alaska and Canada and Russia to see them spawn. The ache of their absence would remain with me forever.

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Peter Singer's Interpretation of Christian Biblical Environmental Ethics

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ABSTRACT

Peter Singer's (1990 and 1993) interpretations of Biblical texts dealing with the natural world are evaluated in the light of recent Biblical scholarship. The texts in question are among those in the Bible relating to Christian ethical teaching about the natural world. The specific texts Singer examined concern the meaning of dominion and the flood of the earth in the book of Genesis in the Old Testament, particular teaching by the apostle Paul in the book 1 Corinthians in the New Testament, and certain actions by Jesus in the New Testament book of Mark. Singer's interpretations have a lengthy pedigree commonly used to hold Biblical teaching partly responsible for adverse Western attitudes to nature. This article argues that such interpretations contradict a deal of recent Biblical scholarship on the texts at issue.

INTRODUCTION

This paper is a critique of Peter Singer's (1990 and 1993) interpretation of Biblical ethical teaching about environmental issues relating to humankind, animalkind and other aspects of the natural world. Singer's exposition of Old and New Testament Biblical material is examined and compared with a range of recent theological explanation and Biblical commentary. In his 1990 and 1993 books, Singer expressed views about what specific texts in the Bible supposedly mean. Evidently, these views represented Singer's beliefs about what he understood to be the sense of those texts. Singer's exegeses of the Biblical texts he cited are evaluated here in the light of how specific theologians have expounded these texts in the last few decades. The conclusion of this paper is that Singer's interpretations represent a minority view of the Biblical position given our reading of a range of recent Biblical scholarship.