SPECIES OF PASSIONATE INTEREST: Practicing Biocultural Conservation and Eco-social Transformation Together

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Abstract

Species of Passionate Interest *expands on the concept of the "cultural keystone species," reviewing its intellectual history and proposing future applications in the field of biodiversity conservation. The paper critiques the classic view of the "keystone" species in Western conservation science, emphasizing the need to consider the dynamic cultural context and the diversity of emotional connections humans weave with the wider ecological world. Through relating biodiversity loss to human consciousness and the possibility of social transformation by way of "ecosophy," the paper emphasizes the importance of future-oriented approaches that go beyond preservation towards creating new eco-social cultural formations altogether. "Species of passionate interest," whether the result of sustenance, ritual, sport, admiration, conflict or economic promise, are found across all cultures and are exceedingly consequential for the ways we hope to understand how different cultural contexts might more ethically relate to one another. As such, the lens offered to conservation praxis by species of passionate interest might just provide the inspiration for developing more flexible and creative conservation practices, ones which combine biocultural conservation and eco-social transformation together.*

Keywords [Biocultural Conservation, Affect Theory, Cultural Keystone Species, Biodiversity, Natural-Cultural Systems, Ecosophy]

Highlights

- *Literature review and critique of the Cultural Keystone Species concept*
- *Offers the more flexible and creative "Species of Passionate Interest" as an alternative*
- *Gives examples of Species of Passionate Interest in complex, heterogenous societies*
- *The result: a praxis capable of conserving and transforming simultaneously*

Introduction

All biodiversity conservation questions are alike because each conservation situation is complex in its very own way. If this sounds like a paradox, it's because best conservation practices are difficult to muster: a diversity of stakeholders with divergent value systems, the intersection of economic and ecological processes, overlapping governmental jurisdictions and co-management strategies, multi-species interactions across a variety of scales (Sandbrook et al. 2010; Karp et al. 2015; Manfredo et al. 2017), all of which results in the emergence of *something* a single person cannot easily comprehend. This wide array of variables is one reason why conservation biology has captivated the intellectual imaginary of an increasingly interdisciplinary group of scholars, but also why conservation has more generally gained traction as a broad-based, popular movement for change (Manfredo et al. 2020). The idea of improving our relations with the environment is both exceedingly complex and widely inspiring. Its work necessitates both the highest orders of thinking and the everyday actions of ordinary people.

In what follows we offer what is perhaps a novel reformulation of how we imagine the work of conservation is done, through the mobilization of "passionate interests," which we hope emphasizes the constructed nature of conservation controversies (Latour and Lépinay 2009). Inspired by the intellectual history and specific applications of the "cultural keystone species" (Garibaldi and Turner 2004), our intent is to expand on this fruitful concept in order to make it more widely applicable *and* locally useful. By re-focusing our attention around the way conservation often revolves around *species of passionate interest*, we would like to further commit to protecting those biocultural relations that continue to support multispecies flourishing, while simultaneously opening up the field to consider those social systems in need of change and also those potentially beneficial ecosocial relations that do not yet currently exist.

Increasingly today, in this epoch of intensified human-wrought environmental change, there is little reason to believe we are going back to some previous state of things, and so "to conserve" means both to save what we can, but also "to adapt" to these newly disturbing conditions. This intricate tension between continuity and change is a dance held in common by all of the living, and it involves our relations with other species, of course, but also the subtle undulations of the human psyche (Bateson 2000). We believe approaching conservation through the lens of *species of passionate interest* will allow for a better understanding of the processes by which the environment, society, and human subjectivity are synergistically constructed through what the philosopher Felix Guattari has called "social ecosophy" (Guattari 2000). In calling for such a re-orientation, we hope to welcome new creativity in the field and the proliferation of practices both encouraging of biocultural conservation and inviting of ecosocial transformation alike.

The 'cultural keystone species' and its ramifications

Since its description by R. T. Paine in *The American Naturalist* of 1969, the concept of the "keystone species" has taken on a life of its own, undergoing permutations across generations of community ecologists and conservation biologists who sensed in its imaginative background a promising utility (Paine 1969). For these primarily Western scientists, the possibility of detecting the hidden patterns of ecosystem complexity proved to be seductive, since the very species interactions they were finding to be of central importance to ecosystem structure were also proving to be the levers of ecosystem regulation and control (Estes et al. 2011). By identifying the keystone species (or the keystone complex of species), the thinking went, conservationists could efficiently support the whole ecological web by focusing their energies on protecting the "strong" species interactions at the center of these ecosystemic networks (Power et al. 1996; Holling 1992).

In recent years, and surely as a testament to the concept's power, the scheme of the idea of the "keystone" has jumped to other domains as well, as the interdisciplinary nature of the biodiversity crisis (now considered a biocultural diversity crisis) inspired scholars working at the nexus of nature and culture to consider whether there might be something called a "cultural keystone species," hereafter CKS (Garibaldi and Turner 2004; Cristancho and Vining 2024; Reyes-García et al. 2023; Dirzo et al. 2014). According to Garibaldi and Turner, CKS are "culturally salient species that shape in a major way the cultural identity of a people… reflected in the fundamental roles these species play in diet, materials, medicine, and/or spiritual practices" (Garibaldi and Turner 2004). Though a CKS does not have to be an ecological keystone as well, the fundamental idea for biocultural conservation is the same: some species play an outsized role in structuring the social relations of a given culture, and by focusing our attention on these species interactions specifically, human cultures and the ecosystems they rely on for their collective continuance might be better conserved (Reyes-Garcia et al. 2023). And in fact, the concept of the CKS has proven exceedingly useful, especially for Métis and First Nations peoples in the Canadian context, where its role as a "bridge concept" for cross-cultural understanding has resulted in its deployment as a powerful legal tool in the service of more autonomy for Indigenous Peoples (Lukawiecki et al. 2024; Garibaldi 2009).

From CKS, still other scholars have broadened the scope of the concept's framing to consider wider aspects of the natural-cultural system as well, proposing "cultural keystone place," "cultural keystone practice," "cultural keystone food group," and "cultural keystone complex," (see Box 1- Glossary) as possible alternatives to the theory's originally more narrow focus on the single species (Cuerrier et al. 2015; Arinyo-i-Prats et al., under review; Platen and Henfrey 2009; Taylor and Anderson 2020). Over the course of this conceptual and practical evolution (the unfolding of a cultural keystone praxis), Platten and Henfrey (2009) have maybe said it best with their emphasis on the surrounding *complex*: "We assert that a cultural keystone is not a

biological species per se, but a complex…often centered upon a particular species, a cultural keystone complex also includes numerous other system elements, both material and non-material" (Platten and Henfrey 2009). The remarkable longevity of the "keystone" as an imaginary aside, the concept's trajectory from something designating the ecological function of a single species to something far more nuanced and vaporous — "system elements, both material and non-material" — speaks to the parallel advances in understanding the holism of coupled human-natural systems more generally (Orr et al. 2015; Oyama 2000; O'Malley 2017).

Table 1. Glossary of terms elaborated in the wake of "cultural keystone species"

***Cultural Keystone Place*:** "A given site or location with high cultural salience for one or more groups of people and which plays, or has played in the past, an exceptional role in a people's cultural identity, as reflected in their day to day living, food production and other resource-based activities, land and resource management, language, stories, history, and social and ceremonial practices." (Cuerrier et al. 2015)

***Cultural Keystone (Complex)**:* "We assert that a cultural keystone is not a biological species per se, but a complex. Although often centred upon a particular species, a cultural keystone complex also includes numerous other system elements, both material and non-material…cultural keystone complexes combine biological species, knowledge, and technical practice. We propose defining cultural keystones, like ecological keystones and literal keystones, according to their structural roles, within social systems. We thus define cultural keystones as system elements with crucial non-redundant functions in maintaining any particular level of structural complexity." (Platten and Henfrey 2009)

***Cultural Keystone Practice**: "*Cultural practices that are both salient and essential for a community's well-being…traditions, knowledge, customs, uses, habits, or rituals with high cultural salience for one or more communities. [CKPr] play (or have played in the past) an exceptional role in the community's cultural identity, as reflected in their dependence on the practice for societal lifestyle, well-being, social structure, relation to environment and self-identity. CKPr have an identifiable name in the language and are encoded in a distinctive set of rules, conventions, knowledge or skills." (Arinyo-i-Prats et al., under review)

Cultural Keystone Food Group: "Our emphasis on a group of crops rather than on a single species…is appropriate in that it recognizes the importance of a culturally cohesive food category. Furthermore, it recognizes that in some, and perhaps many, instances, it is not a single species – a single crop - but a number of species from a group of crops that are the 'keystone.' The "food group" concept also allows for flexibility, for personal choice within the larger category, while still recognizing the cultural importance of the category." (Taylor and Anderson 2020)

***Nonconsumptive Cultural Keystone Species**:* "Here, we extend the concept to more explicitly include species with which cultures have a primarily nonconsumptive relationship, but that are nonetheless disproportionately important to well-being and identity…species that often serve as ecological "flagship species" in conservation efforts, are also important CKS despite…not being used extractively. We describe how these species illustrate the importance of recognizing the significance of many species to the cultures with which they have shared landscapes with since time immemorial, even independent of material benefits." (Clark et al. 2021)

***Cultural Keystone Relationship**: "C*ultural relationships to wild species that are intimately tied to language, knowledge, practices, and places in ways that are deeply interconnected. We posit that by centering the importance of relationships to CKS in conservation, practitioners can begin to reintegrate the divide between humans and nature, by recognizing that species cannot be protected in isolation from the human cultures in which they are held in close relation." (Lukawiecki et al., 2024)

***Culturally Important Species:* "**Here defined as species that have a recognized role in supporting cultural identity, as they are generally the basis for religious, spiritual, and social cohesion and provide a common sense of place, purpose, belonging, or rootedness associated with the living world" (Reyes-García et al. 2023)

Methods: What is a theory good for?

Considering the robust critique of the concept of the CKS in scholarly journals, we will let the considerable elaboration of related terms speak for themselves (**See: Table 1**). Rather than belabor any shortcomings, we take inspiration from the insights generated by the CKS discourse regarding the intimate links between nature and culture, and want to utilize the energy surrounding this interest to expand the CKS conversation to include a wider array of conservation issues, mainly those eliciting *passionate interest.* In what follows we attempt to critically engage with the conceptual legacy of the CKS discourse, and to offer a theoretical expansion that could be applied to more conservation contexts. This is a decidedly reflexive exercise, and one involving an extensive literature review, but also a kind of critical reimagination of the CKS concept. Even though it remains to be seen whether *species of passionate interest* offers a meaningful adaptation of the working theory, the following list of principles have guided our work towards constructing this new affect-based framework.

Firstly, a good theory must be generally useful but not universalizing (Liboiron 2021). Whereas much of the debate around the CKS concept has centered around the protocols for defining a CKS specifically, focusing on the intensity of passion around a given species generally allows for a movable way of identifying critically significant aspects of an ecosystem without attempting to specifically define the terms of these relationships from the outside. Secondly, a good theory, like a tool, must allow for the focusing of energy and attention in such a way that allows for "becoming sensitive" to discrete phenomena (Latour 2004). Since one of the main benefits of the CKS concept is that it purports to gather actionable conservation intelligence, by looking towards those species that induce the greatest passion, we can still sensitize our conservation priorities to the situations where there is already vivacious interest, and to generate new interest where there is none. Afterall, scientists themselves participate in these ecosystems, and themselves and their work are imbued with a passionate interest for the systems they study. Third, a good theory must lead to understanding relationships without grasping or desiring to overtly control (Latimer 2013). If there is one thing that cannot be controlled it is the passions — emotions can be understood, felt, communicated, and held, but one cannot control them by force.

And finally, a good theory must show us that we can be otherwise, or in other words, that we can make bad relations into good relations (Hage 2012). Although, as of late, there has been recognition in the CKS literature of context dependency and the necessity of grappling with ecosystemic change, even still, the genealogy of the concept remains largely conservative in the sense that it is oriented around stability and structure (Platten and Henfrey 2009). By focusing on those species that elicit the greatest passions, and perhaps especially on those eliciting oppositional passions, we believe we can honor the original hope for the keystone concept (i.e., to preserve species and also entire ecosystems), while also recognizing the always changing and decidedly constructed cultural context of our own and others' ecological practices. Where worlds

collide, there are opportunities to learn without flattening, and to let foreign concepts work over our own while respecting those practices of others that have led to earthly flourishing. Focusing on passion, we believe, offers the best hope for biocultural conservation *and* radical change.

How do we define a 'species of passionate interest'?

The need for a clear and quantifiable definition of a CKS and to scientifically systemize its categorization has been fundamental to the intellectual history of the concept and one of the main drivers of its robust critique (Coe and Gaoue 2020). From the beginning, Garibaldi and Turner offered a quantitative index for determining the cultural influence of a species, which included such elements as the intensity and multiplicity of use, its role in language, ritual and narrative, and the extent to which the species could be replaced or substituted (Garibaldi and Turner 2004). Since then, some scholars have wondered about the difference between cultural and economic importance (Cristancho and Vining 2004). Others have called for using the term "culturally important species, " which combines knowledge about both biological and cultural status in such a way that encourages meaningful conservation action across scales (Reyes-García et al. 2023). And still others have questioned the utility of a concept that might vary significantly depending on the cultural context in question and have suggested a sliding scale for determining the intensity of the CKS relation (Mattalia et al. 2024).

In our eyes, however, the difficulty of operationalizing the definition is not a problem to be solved by further refining the parameters towards the concept's universal application, but rather, it is a distraction from the higher order consideration of the fact that good conservation praxis necessitates recognizing the incommensurability of definitions, the non-fungibility of relations, and the difficulty with discrete relational categories in the first place (Chan et al. 2016). Instead, we propose prioritizing conservation initiatives around *species of passionate interest* most generally, and by attending to the production of these emotions, the textures and entanglements generated by these multispecies relations, we will inevitably be led to those species of special conservation concern. In ecologies, just as in economies (where nature and culture are inevitably intertwined), there is always the continuous and invisible transmission of feelings — an exchange of persuasions, excitements and energies through conversation, human or otherwise, which creates the conditions of possibility (Latour and Lepinay 2009). In a sense, then, passionate intensity, whether constructive or destructive, is identical to the structuring logic of the original keystone concept, except here it's framed as socially constructed: whereas the keystone species purports to indicate the functionality of a species as a central node within a complex web of relations, we believe *passion is ecosystem complexity's mythic sign*.

Increasingly today, some of the more intractable conservation issues involve an array of diverse stakeholders and rights holders, ranging from Indigenous Peoples and Local Communities to

ranching and industry interests, from sportsmen and recreationists to the conservation biologists who also add themselves to the ecologies they study. In these cases, the concept of CKS might only prove technically applicable to one or a few of these groups' relations with the species in question — and for the most part this label has almost exclusively been applied by Settler scholars to define the relations of Indigenous Peoples. And yet many different kinds of groups (cultures of affinity) are passionately interested in the ecosystems where these species (and many other species as well) make their homes, sometimes for the better, but oftentimes for the worse. Considering most people today are living in novel ecosystems, both in the sense that ecosystems are changing and people are moving across the Earth as well, how should we consider this wider web of emerging relations (Hobbs et al. 2009; Kung et al. 2023)? In order to adapt our conservation action to an ever-changing world, we need a conservation framework that simultaneously honors the cultural significance of species to Indigenous Peoples, while also recognizing the multicultural context of today's most complex conservation questions.

Although there maybe many ways to measure the passionate intensity latent to any given conservation situation — through surveys, review of press materials, semi-structured interviews, analysis of legal codes, investigative accounting, ethnography of ritual, documentation of violence, etc. — there are perhaps two critical reasons why refocusing conservation around emotion makes sense. Firstly, by attending to the passions generally, we are not attempting to define any single group's relationship with another species, but rather, we are allowing these relations to speak for themselves in the terms of the emotions they generate from the inside. Aside from a few examples, rarely has the designation of a CKS come from the "bottom up" (Goolmeer et al. 2024), and in fact, the term does not always resonate with how Indigenous Peoples understand their own "kincentric" relations (Lukawiecki et al. 2024). And secondly, by focusing on the passions without defining them, we are also opening ourselves up to considering conservation situations where difficult, destructive emotions, or even emotions in opposition to one another, are sustaining a seemingly intractable conservation problem. In most complex ecologies, especially where Settler Colonialism or economies of extraction still dominate the landscape, regimes of co-management between multiple entities involves a complex matrix of emotions where common understandings are few and far between (**See Fig. 1 for examples)**.

Figure 1. Examples of *Species of Passionate Interest* (All images from Creative Commons)

Conservation: A Matter of Understanding Misunderstandings

By focusing on passions generally, there is no attempt to make "our" concept universally operational, and in fact, there is no requirement even to recognize a common conceptual world. The goal, rather, would be to attend to productive divergences in order to harmonize those oppositions that are preventing progress on the most pressing conservation concerns. Conservation, then, becomes oriented around *species of passionate interest*, and its task is to recognize the uncommon ground there in order to weave something more cohesive from a world of many often irreconcilable differences (Blaser and De la Cadena 2017). Although there is still much to learn about ecosystems, for example, we tend to know by now what is good for salmon, even if it remains difficult to cultivate a common understanding of the right use of river water **(See Fig. 2)**. The theory of species of passionate interest here draws us towards those confluences of oppositional emotional intensity, and asks us as biodiversity conservationists to dwell there, in what the anthropologist Eduardo Vivieros de Castro calls "equivocation zones" (Viveiros De Castro 2004):

An equivocation is not just a "failure to understand"(Oxford English Dictionary, 1989), but a failure to understand that understandings are necessarily not the same, and that they are not related to imaginary ways of "seeing the world" but to the real worlds that are being seen" (11).

Or in other words, the work of conversation becomes amending the failure to understand that when referring to a given species, ecosystem, place, or even a practice, different groups of people might mean very different things. For some, a wolf is a majestic symbol of the American West to be protected, and for others this same wolf is a thief who threatens their livelihood; still for others this wolf is quite literally a member of their family, or kin. A species of passionate interest, then, is one whose ongoing existence is a loci of passion that is also a cipher for the wider political fault lines constitutive of the society in question (and so sometimes this species is a site of struggle, as well, but also possibly the site of productive translations leading to greater social harmony). These cultural fissures do not necessarily have to go away in order for ecological relations to be repaired, but only if these uncommon interests can be remade in the service of co-existence (Niesner et al. 2024). Moving towards this trouble is what it means to make bad relations into good relations.

The scholar of emotion Eve Sedgwick, in one of the foundational texts on "affect theory," says there are generally two emotional styles or "positions" of practicing politics, which are often deployed together in a kind of to and fro movement: the paranoid and the reparative (Sedgwick 2003). For Sedgwick, the paranoid position is a strong theory of negative affect, it is anticipatory of hidden violences, and it places its faith in exposing the dangers posed by potentially bad actors. Critically, it leads to *reifications*, those sticky ossifications of being that are the result and the cause of distinctly rigid relations (Strathern 1988). The reparative position, on the other hand, is the "heartbeat of contingency." Additive, creative, and oftentimes imbued with a sentimental surplus of love, hope, and good humor, the reparative process attempts to turn one's own resources towards the task of repairing or assembling our fractured bits of relations into something like a "new whole." According to Sedgwick, the reparative position: "inaugurates ethical possibility — in the form of a guilty, empathetic view of the other as at once good, damaged, integral, and requiring and eliciting love and care" (Sedgwick 2003, pp. 137). Such ethical possibility, however, is also founded on the very fragile concern of caring for oneself as well, and critically, the reparative position thus leads the practitioner to seek pleasure and nourishment in an environment where such opportunities are perceived as scant or non-existent.

How, then, might we become *affect*-oriented in conservation biology, and in particular, oriented towards those nourishing, positive emotions for those practicing this work? It might look something like attending to the social-ecological rifts, breaks and fissures of the ecologies in question, to those places where the passions of the wider society guide us, and dwelling there, in the hopes of repairing something of the larger whole. This is difficult work to be sure, but certainly worthwhile. It might mean inventing new desires for ourselves and others as well, which could sustain the practices of whatever we (biocultural conservationists) may find useful and nourishing. In turning towards the resources of our own and other's passionate creativity, repair and transformation might justly be made possible.

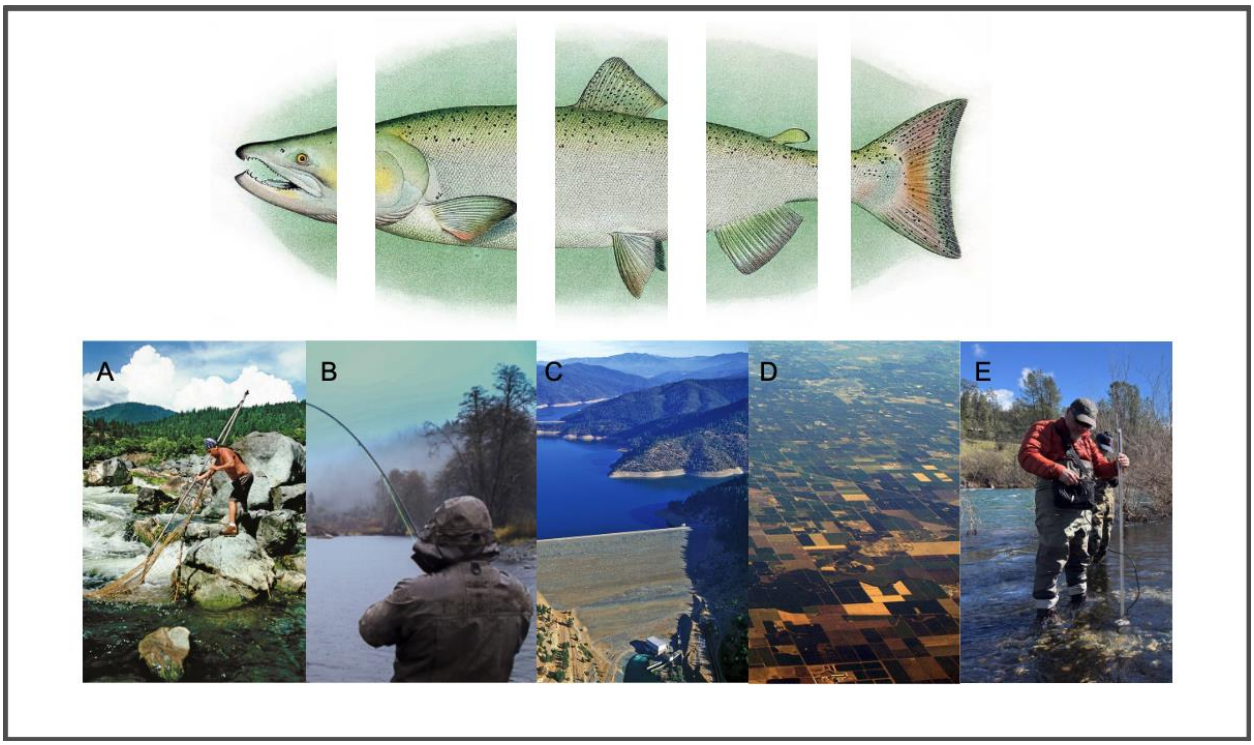

Figure 2. The Potential Complexity of a *Species of Passionate Interest*: The Potential Complexity of SPI — *Species of passionate interest* like the Chinook Salmon (*Oncorhynchus tshawytscha)* can become the loci of manifold passions involving a variety of cultural practices, ranging from (A) Indigenous customs and livelihoods, which pictured here is Karuk dip net fishing (B) Sport fishing, (C) Hydropower extraction and stillwater recreation, (D) Irrigation for industrial agriculture, (E) The science of riparian ecology. Where these passions overlap, the work of conservation becomes navigating the political reality of these different mis/understandings [Photo A from *The Times Standard; photos B, C, D, from Creative Commons; photo E from The Trinity River Restoration Program]*.

The relationship between biodiversity and human consciousness

We are living in an intensifying cataclysm of global biodiversity loss (Dirzo et al. 2014), which is also intertwined with the imminent threat to the integrity and very survival of countless Indigenous and Local Cultures that rely on this tapestry of life for their continuing existence (Reyes-Garcia 2023). Fields such as ethnobiology, linguistic ecology, and environmental anthropology have also begun to express in practice what's been known to metaphysicians from a variety of cultural contexts for a long time: the perception of diversity is the basic condition for the flourishing of human consciousness (Maffi 2005). The human psyche is constructed by a diversity of worldly relations, many of which are more-than-human in nature (Kohn 2013). Or as Alfred North Whitehead says, "we are in the world and the world is in us" (Whitehead 1934). Of course, this intertwining of biodiversity and human consciousness provides the inspiration and moral imperative for protecting biocultural diversity wherever it may live.

Attending to *species of passionate interest* then allows conservation to tap into the deep emotional landscape that sustains both personal connection and public action. Positive psychology has shown that experiences of awe, hope, beauty and purpose can significantly enhance well-being and motivate prosocial behavior (Corral Verdugo 2012). As Susan Clayton has argued, environmental concern is often deeply tied to identity and emotional investment, meaning that conservation disputes are rarely just technical disagreements, but expressions of core values and affective commitments (Clayton and Opotow 2003). Understanding how desire, joy, grief, and anger intermingle in conservation settings requires a psychological lens attuned to both the sustaining power of positive emotions and the constructive role of emotional conflict (Castillo-Huitrón et al. 2020). By recognizing the emotional undercurrents of conservation questions, we can better grasp how passion (e.g., whether for species, places, or cultural traditions) shapes identity and conservation outcomes alike, for better or worse.

Thus far, theories of biocultural conservation, of which the discourse around the CKS takes part, has largely focused on the way biodiversity has sustained Indigenous and Local Cultures (Franco 2022), and this theorizing has resulted in practices of knowledge gathering and political movements to conserve and preserve this diversity for posterity and for a variety of evolving purposes (Gavin et al. 2015). The discipline of ethnobiology, for example, was originally oriented around colonial utilitarianism, where this research sought to extract information from local cultures for use in other, Western contexts (Hunn 2007). Only in recent decades, however, has the field shifted to allow holders of traditional ecological knowledge (TEK) more control over how this knowledge is obtained, shared and used, and the field has commendably moved to 'decolonize' (Edwards 2023). Today, the autonomy of Indigenous Peoples themselves, what's known generally as "collective continuance," is intensely prioritized, and the agency of the wider other-than-human world, too, is considered as worthy of recognition (Whyte 2018). Of course, for many of the world's Indigenous Peoples, practices of tending to the land in order to increase biodiversity has been and is continually central to their existence since "time immemorial" (Anderson 2005; Norgaard 2019).

These cultures must be defended, protected, and respected, for their flourishing is not only valuable in its own right, but it is also inextricably linked with the ongoing survival of humans more generally on this planet (Danowski and Viveiros de Castro 2017). But this task of "conserving" is perhaps only one critical aspect of a larger process that involves so many of the Earth's human residents who are not already sensitized to local biodiversity concerns. As people move across the globe, they change the landscape immensely, and bring with them other living beings as well — one of the most bio-destructive movements of people, of course, is broadly known as "settler colonialism" (Whyte 2018). And in order to adapt to living on this changing planet, firstly, the existing biocultural diversity must be conserved, protected and given the sense of self-determination necessary to flourish; but secondly, and this is equally critical to Earthly survival, whole societies must be inspired to undergo radical transformations towards becoming

more ecologically conscious. In a sense, CKS must necessarily be conserved, but something like *new* CKS relations must be cultivated as well. These twin imperatives of addressing conservation and inspiring change are certainly related, but the terms of the relationship are delicate, contingent and still evolving. Neo-colonial dynamics must surely be avoided — we must learn from history. What's certain, however, is that without the simultaneous articulation of conservation and social change, there is little hope of humans continuing to flourish on a planet with a diversity of other life forms flourishing as well.

In his 2000 short book *The Three Ecologies,* the philosopher Felix Guattari gives shape to what he calls *social ecosophy,* an ethico-political articulation of the way three ecological registers are inextricably linked: the environment, social relations and human subjectivity (Guattari 2000). For Guattari, social ecosophy consists in developing specific social practices that will modify and reinvent the ways in which we live, with radical consequences for the environment:

Obviously it would be inconceivable to try and go back to the old formulas…But it will be a question of literally reconstructing the modalities of 'group-being,' not only through 'communicational' interventions but through existential mutations driven by the motor of subjectivity. Instead of clinging to general recommendations, we would be implementing effective practices of experimentation, as much on a microsocial level as on a larger institutional scale. For its part, mental ecosophy will lead us to reinvent the relation of the subject to the body, to phantasm, to the passage of time, to the 'mysteries' of life and death. It will lead us to search for antidotes… Its ways of operating will be more like those of an artist [34-35].

If we need to experiment with relating to the other-than-human world, then *species of passionate interest* might just provide the opportunity for developing these critically transformative practices. Curiously, rather than speak of human "consciousness," or even human "subjectivity," Guattari invokes "the motor of subjectivity," and elsewhere he describes the human mind as less of an individuated mass and more like something of a "terminal" for processing relations, "the crossroads of multiple components that are relatively autonomous, but also sometimes in open conflict." In other words, humans are constructed by our relations, our being is drawn out of us by those *components of subjectification,* the sensibilities, intelligences, and desires whose cultivation allows us to continually reinvent who we are within the web of our ecological and social relations **(See Fig. 3 for a list of components of subjectification related to SPI)**.

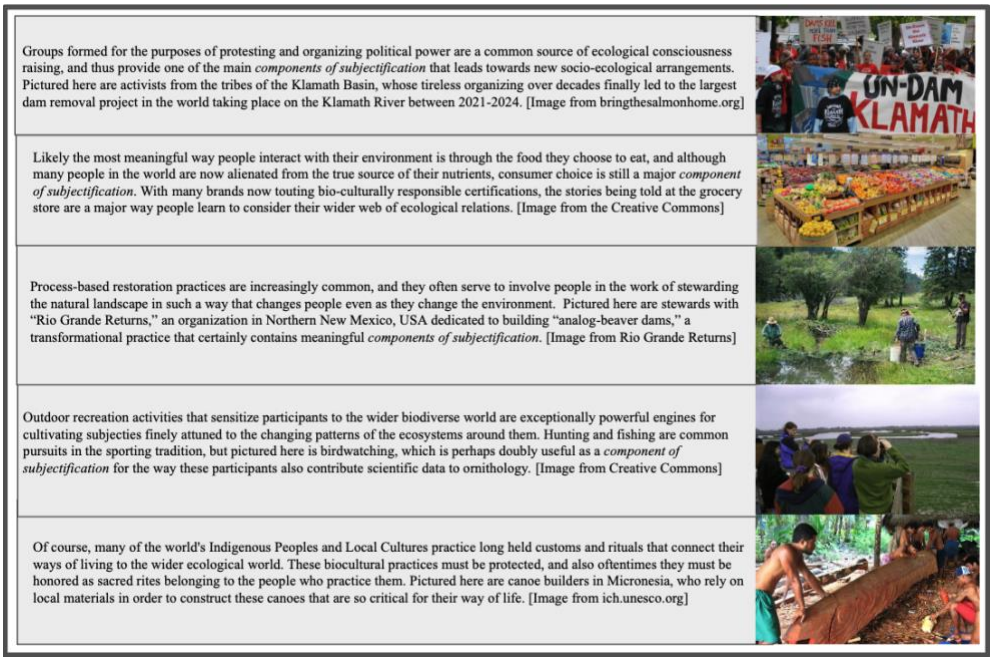

Figure 3: List of components of subjectification relevant to eco-social relations

Conclusion

In any given conservation situation, subjectivities new and old are fashioned and refashioned in the fulcrum of *passionate intensity* that is the result of the relations surrounding these biocultural diversity controversies. These questions in their given locale often subsume all existing modes of being: the intimacies of multispecies relations, questions concerning the stewardship of the wider environment, and the activation of organized groups for the purposes of local activism, statecraft, wildlife management, and even for family or business interests. Here, where a *species of passionate interest* signals the existence of a complex web of eco-cultural relations, the intense emotions that accrue must be recognized for their conservation potential, no matter whether these emotions are oppositional, compassionate, harmonious, or destructive. If the CKS discourse identifies a critical species to be conserved for the purposes of maintaining the resilience of a given culture, then a *species of passionate interest* might designate a resilient cultural complex holding within itself the energy necessary for doing the work of species conservation into the future. It's a subtle difference, but the dilation of the CKS concept to include the passions most generally keeps open the possibility of simultaneously protecting threatened biocultural arrangements, but also for constructing *new ecological arrangements* in a world where this sensitivity is increasingly required for survival.

What new biocultural relations, communities, assemblages might we be able to form if we focus our resources around the passions surrounding some of the most intense conservation concerns? How might we be able to preserve the good practices and transform the bad practices through the

delicate interaction of (or translation between) biocultural worlds? How do we hold space for these passions from the "reparative position" in order to create a sense of wholeness that is wholly different from what these ecosystems once were? In so many ways, this work is already occurring in places where biocultural conservation is being prioritized. A first step towards furthering the proliferation and diversification of these practices would be to ask towards some of the specific ways people involve themselves in issues of biocultural conversation. What are the sensibilities, intelligences, and desires that either support or thwart this work, and how do we steward these intensities for the purposes of inviting new eco-social arrangements? The creativity of our social practices are in synergy with the creativity of the ecosystems we hope to conserve. What this looks, and *feels* like, remains open to evolution.

Table. 2 - Outstanding Questions

1. How should we understand the relationship between a *species of passionate interest* and the wider ecology of which this species is a part? If we are to take a holistic understanding, how do we also emphasize "place," "practice," and "complex" as contributing to the survival of discrete species?

2. *Species of passionate interest* can be those species that must be conserved, those species that are currently flourishing, but also those species which may not receive a lot of attention (just yet). How should we think about this future-oriented, creative aspect of the theory, which in some cases calls for creating passionate interest around a given species where there currently is little or none to be found?

3. What should the relationship be between Indigenous cultural practices and those of the wider, dominant society that are in need of changing? Without inviting neocolonial dynamics, ie exploitation, extraction, how might cultures learn from each other in order to cultivate best conservation practices for everyone?

4. Are there different kinds of *species of passionate interest,* and would these different categories call for different conservation action? For example, is there a meaningful difference between a "complex" SPI — one which invites various and sometimes antagonistic emotional attachments — and an SPI that is more like a traditional cultural keystone species?

5. How do we cultivate the right kind of *components of subjectification* while simultaneously working to mitigate the effects of the most destructive forms of environmental subjectivities? If biocultural conservation becomes oriented now around emotions, do we need to formalize a more "therapeutic" dimension to this work, which could address feelings around conflict and extraction?

6. In order to hold space for conflicting, contradictory, or even antagonistic emotions, what new forms of environmental governance might *species of passionate interest* invite us to construct for managing the complex natural-cultural situations around conservation concerns? How do we foster dialogue between people who have different value systems, and who hold different beliefs about the ecosystems in question?

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