Definition of Terms

The SCBNA definition of “conservation:”

“Conservation is a practice informed by the best evidence-based science and place-based knowledge whose outcomes protect and restore the natural environment --- including its air, soil, water, biological diversity, ecosystem processes, and evolutionary potential – to ensure equitable benefits derived from nature and safeguard its value for current and future generations of all life.”

Offering an all-encompassing definition does not imply that any one should work on all components of nature using every method here or below. We expect priorities to differ among individuals, groups, and places.

Below we define phrases in the definition to explain our thinking. We also invite other SCB regions to adopt their own definitions of terms below or add to the below if helpful for their sociocultural or regional needs:

*“***practice informed by***”:* we included “practice” as an integral component of a contemporary definition [of conservation]. Practice centers on actions informed by evidence about the current status, past conditions, and likely future outcomes of the issue at hand.

“best evidence-based science”: which is best approximated by strong inference provided by the best available scientific observations, measurements, and inferences. We do not restrict our understanding of “science” to western science but include the best, tested, and validated experiences and informal knowledge(see place-based knowledge below). Nor do we consider all peer-reviewed publications to be the best available science. Rather, we hold any source of evidence to standards that transcend western science. Namely, the evidence should be transparent in methods and assumptions, reproducible (subject to replication at every step) or better yet already verified by replication), and withstood independent review that followed the same principles of transparency and reproducibility. When evidence is collected, replicated, and reviewed by methods other than those of western science, yet it meets these standards, namely that it is transparent, reproducible, and subject to independent review, we consider it the best available no matter its source, history, or approach. In other words, the identity of researchers is irrelevant, only the methods and process of validation is important.

“place-based knowledge”: Experience and understanding gained through time spent in a place while coexisting with, learning from, and sustaining biodiversity and ecosystems in relationship to their abiotic, sociological, and cultural components. The reliability and quality of place-based knowledge should be evaluated, not taken on authority, or by enumeration of years of experience, or unfalsifiable teachings. The best test of place-based knowledge is its ability to accurately describe how the components of a place coexist, interact, and sustain each other and help predict future events and conditions.

“Outcomes”:
“protect”: Synonymous with “safeguard” and “preserve” meaning “to keep safe from injury, harm, or destruction” (Findlaw Legal Dictionary https://dictionary.findlaw.com/definition/preserve.html#:~:text=pre%C2%B7serv%C2%B7ing,%E2%80%9C%5D accessed 26 Feb 2026). Although some would caricature the word preserve as meaning save untouched in perpetuity. Here we attempt to avoid a debate about conserve versus preserve by defining preserve in its broader sense, avoiding the meaning of conserve as ‘wise use’ which emphasizes use over protection, and implies an actor whose wisdom is unsubstantiated and non-transparent. To avoid this debate, we use safeguard and protect as synonyms for preserve, defined as above.

“Restore”: We use this word to mean repair, reintroduce, or regenerate health, viability, and function to a component of nature that has been damaged, destroyed, or made unhealthy.

“natural environment”: The components of our planet that sustain all life, including all its biotic and abiotic components.

“air”: The atmosphere and gases absorbed in other materials during atmospheric-oceanic-biospheric cycling. Although defined as abiotic here, it is essential for the respiration of all living organisms, whether obligate aerobes or anaerobes.

“soil”: The dynamic top layer of the planet (including submerged soils in aquatic ecosystems). Soil occurs in four phases (a mixture of solid mineral particles, organic matter, liquid (soil water), and gas (soil air), which exists at the intersection of the lithosphere (rock), atmosphere (air), hydrosphere (water), and biosphere (life). It serves as a habitat for microorganisms, plants, and animals, acts as a filter for water, and cycles nutrients.

“water”: All the planet’s fresh, marine, subsurface, surface, and atmospheric (e.g., acid rain) waters.

"biological diversity": From unique genomic sequences up to the highest levels of taxonomic organization (domains, kingdoms) and assemblages of life (habitat, ecosystems, biomes) including every taxonomic level in between constitute the diversity of life on Earth. We specifically include the protection of individual nonhumans, because they have been historically ignored because of a conservation biology focus on populations or species, and an elevation of human needs above all other life.

"ecosystem processes": We use this phrase to refer to important interactions between species (e.g., pollination, predation, decomposition, scavenging, seed dispersal) which maintain diverse and vibrant habitats or ecosystems. Although the component individuals or populations engaged in such interactions may be replaced by others, the processes may continue without qualitative changes. Processes may include abiotic components (e.g., soil tunneling by earthworms alters the processes and diversity of soils by movement of air, water, minerals). We include in this phrase the actions of ecosystem engineers (photosynthesis and oxygen) that create niche space for other individuals by virtue of their anatomies or their manipulations of their surroundings.

"evolutionary potential": The inherited and learned capacity to adapt to changing environments including both inherited (genetic) adaptation which is enhanced by heterozygosity and allelic diversity, but also the behavioral flexibility that is enhanced by advanced cognition, social learning, etc.

"Ensure": "To make certain the occurrence of or arrival at a desired state" (OED accessed 25 February 2026).

"Equitable": "Of actions, arrangements, decisions, etc.: That is in accordance with equity; fair, just, reasonable." (OED accessed 25 February 2026). As distinct from equal in which each party receives the same, equitable leads each party to receive a fair share according to their needs.

"benefits derived from nature": Earth's natural environment provides benefits to humans and all living organisms so they can realize health and wellbeing. See instrumental values (use) below for human uses that we do not recognize as benefits worthy of protecting or sharing equitably.

"Safeguard": Synonymous with "protect" and "preserve" meaning "to keep safe from injury, harm, or destruction" (Findlaw Legal Dictionary https://dictionary.findlaw.com/definition/preserve.html#:~:text=pre%C2%B7serv%C2%B

7ing,%E2%80%9C%5D accessed 26 Feb 2026). Here we attempt to avoid a debate about conserve versus preserve by defining preserve in its broader sense, avoiding the meaning of conserve as 'wise use' which emphasizes use over protection. To avoid this debate, we use safeguard and protect as synonyms of preserve defined as above.

"Value": We include both (a) *intrinsic values and (b) instrumental (use) values. (a) Intrinsic value is defined as "B*elonging to the thing, or by its very nature; inherent, essential, proper; 'of its own'." (OED online definition 3 adjectives accessed 25 February 2026). We understand intrinsic value as pertaining to all living organisms. We use the plural in this phrase to convey that each individual has its own interest separate from any human interest or extrinsic value. Note because the following term is nonhuman nature, we recognize that intrinsic value of the biosphere has not been recognized historically and human intrinsic and instrumental values have taken priority. We put intrinsic value of each and every human alongside the intrinsic value of each and every nonhuman, with the goal of preventing extinction, protecting biodiversity and its inherent value beyond human interests. (b) "Instrumental values" reflect the necessity that one organism survives or reproduces at the expense of another. Many organisms consume others to survive and reproduce in all their varied manifestations. We accept such uses are necessary, but our recognition of intrinsic value (above) signifies that some of these uses by humans are trivial (recreation, trophy, luxury, etc.) that pose threats rather than acceptable uses.

"current and future generations of all life": All organisms share a future and our destinies are intertwined on this planet. We, the current generation ought not (a) ignore the intrinsic value of each individual or (b) hinder future human generations' opportunities of self-determination. We, the current generation, are the trustees for future life of all species. The planetary natural environment is the legacy with which we are entrusted. This is a moral duty.