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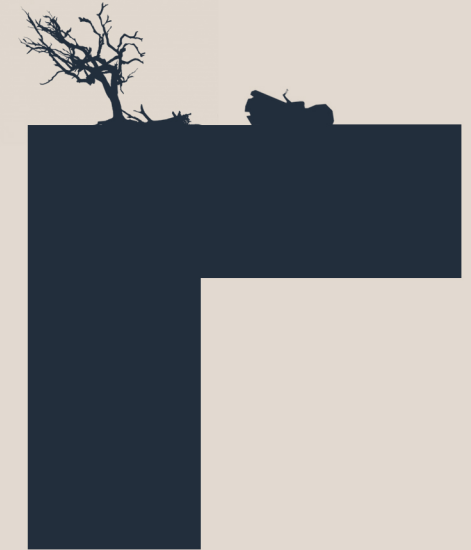
FORESTS ARE EARTH'S PREDOMINANT TERRESTRIAL ECOSYSTEM, ENCOMPASSING APPROXIMATELY FOUR BILLION HECTARES AND COVERING ONE-THIRD OF THE EARTH'S SURFACE.

THE FOREST BIOME COMPRISES THREE MAJOR FOREST ZONES: TROPICAL, TEMPERATE AND BOREAL FORESTS (TAIGA). FORESTS OCCUPYING DIFFERENT LATITUDES AND ELEVATIONS GENERATE DISTINCTLY DIFFERENT ECOZONES - BOREAL FORESTS OCCUPY THE SUBARCTIC ZONE, TROPICAL FORESTS ENCIRCLE THE EQUATOR, AND TEMPERATE FORESTS PROLIFERATE THE MIDDLE LATITUDES.



60%

FORESTS ARE INCREDIBLY VALUABLE ENVIRONMENTS, PROVIDING BATS CRITICAL FORAGING AND ROOSTING HABITAT. IN NORTH AMERICA, APPROXIMATELY 60% OF BAT SPECIES ARE FOREST-DWELLING. THE ROOSTING REQUIREMENTS OF FOREST BATS ARE SPECIES-SPECIFIC AND DEPENDENT ON SEVERAL SPATIAL SCALES, FROM CAVITY TO LANDSCAPE LEVEL. GENERALLY, ROOST CAVITIES ARE FOUND IN DEFECTIVE, LARGE DIAMETER, OR STANDING DEAD TREES (SNAGS).



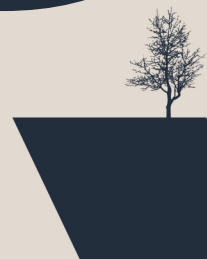
LARGELY CONIFEROUS, THE BOREAL FORESTS OF SIBERIA, SCANDINAVIA, ALASKA, AND CANADA REPRESENT THE LARGEST TERRESTRIAL BIOME, ACCOUNTING FOR ONE-THIRD OF EARTH'S FORESTS.

A SINGLE CAVE WITHIN ALBERTA'S MAJESTIC BOREAL FOREST CONTAINS A COLONY OF LITTLE BROWN BATS AND REPRESENTS THE LARGEST ALBERTA BAT HIBERNACULA EVER RECORDED OUTSIDE OF THE ROCKY MOUNTAINS.



56%

IN TEMPERATE LATITUDES, BATS INHABITING FORESTS CONSUME VAST QUANTITIES OF INSECTS - MORE THAN HALF THEIR BODY WEIGHT - NIGHTLY, INCLUDING COSTLY "PESTS" SUCH AS BARK BEETLES AND WESTERN SPRUCE BUDWORMS. THESE FOREST DEFOLIATORS EXPERIENCE PERIODIC POPULATION OUTBREAKS, WHICH CAN PROVIDE BATS BOTH FORAGING (OPPORTUNISTIC CONSUMPTION) AND ROOSTING OPPORTUNITIES (IN ONE STUDY, BARBASTELLE BAT MATERNITY COLONIES WERE RECORDED EXCLUSIVELY IN TREES KILLED BY BARK BEETLES).



60%

TROPICAL FORESTS HARBOR CA. 60% OF ALL KNOWN ANIMAL AND PLANT SPECIES IN ONLY 8% OF THE PLANET'S SURFACE. THIS DIVERSITY IS LARGELY MEDIATED BY THE COMPLEX STRATIFICATION AND MULTIDIMENSIONALITY OF TROPICAL FOREST CANOPIES, WHICH ALLOW FOR ADDITIONAL NICHE SPACE AND FACILITATE THE COEXISTENCE OF A LARGE NUMBER OF SPECIES IN THE SAME GEOGRAPHICAL AREA. POWERED FLIGHT ALLOWS BATS TO EXPLORE RESOURCES ACROSS THE MULTILAYERED SPACE OF TROPICAL RAINFORESTS.



FOREST WETLANDS SUCH AS PONDS, SEASONAL POOLS, BOGS, AND BEAVER PONDS ARE VALUABLE RESOURCES. AS ECOSYSTEM ENGINEERS, BEAVERS INFLUENCE HABITATS AT THE AQUATIC-TERRESTRIAL INTERFACE, CREATING RESOURCE-RICH ENVIRONMENTS FOR INSECTIVOROUS BATS. MANY SPECIES FORAGE INTENSIVELY ON AQUATIC ARTHROPODS AND THE NUMBER OF EMERGING AQUATIC INSECTS CAN BE FIVE TIMES HIGHER AT BEAVER FLOWAGES.



80%

FORESTS HARBOR 80% OF EARTH'S TERRESTRIAL BIODIVERSITY INCLUDING PLANTS, MOSSES, ALGAE, FUNGI, INSECTS, MAMMALS, BIRDS, REPTILES, AMPHIBIANS, AND MICROORGANISMS. FORESTS OF THE TEMPERATE ZONE ARE REGIONALLY INHABITED BY ONLY 3 TO 10 BAT SPECIES. IN CONTRAST, TROPICAL FORESTS HARBOR MORE THAN 10 TIMES AS MANY SPECIES. IN THE AMAZON RAINFOREST OF EASTERN ECUADOR, 90 TO 110 SPECIES MAY OCCUR SYMPATRICALLY.

