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	Sommario/riassunto	Insects have successfully inhabited all freshwater habitats on Earth and are often the most diverse and abundant species in streams and ponds. With a disproportionally high species richness compared to the area covered by freshwaters, aquatic insects represent a hotspot of diversity. They play crucial roles in aquatic food webs as primary consumers, detritivores, and predators, but they also represent an important food resource for aquatic and terrestrial predators. Many aquatic insect orders, such as mayflies, stoneflies, and caddisflies, include taxa that are highly sensitive to habitat alterations, reflecting the health of the overall aquatic ecosystem. This feature is exploited by many scientists and practitioners around the world for water and environment quality monitoring. Despite their importance in term of diversity, ecosystem services and bioindication, many aquatic insect species are critically endangered, mainly due to anthropogenic pressures on freshwaters and climate change. Although the research efforts on aquatic insects tremendously increased during the 21st century, much is still left undiscovered. This Special Issue addresses existing knowledge gaps and increases our understanding of taxonomic diversity and phylogeny, distribution patterns, and community ecology of aquatic insects through 15 new studies that cover most of the aquatic insect orders over a wide geographic range. In a context of rapid global biodiversity

loss, accelerating the acquisition of both fundamental and applied knowledge is crucial.