ACOUSTICS2008/1491 The value of acoustic technologies for monitoring bird migration

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Many North American species of birds give distinctive flight calls during nocturnal migration. Monitoring these calls can be a powerful method for studying the timing and magnitude of migration, as well as for confirming the presence of individual species and potentially for quantifying passage rates. Recent technological advances in acoustic monitoring, such as increased processor speeds of computers, automated detection software, increased data storage capacities, and a comprehensive identification guide, permit recording of the vocalizations of passing migrants over entire nights for entire migration seasons, thus yielding data on species composition, migration timing and routing, and the magnitude of migration, presenting data on species composition and relative abundance. Additionally, I will present some recent approaches to addressing quantification of passing migrants by their calls. I will also discuss wider applications of this technology beyond the realm of North American migrant species.