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Sound production and spawning by black drum (*Pogonias cromis*)
in southwest Florida

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We used the Long Term Acoustic Recording System (LARS) to investigate patterns of sound production in spawning aggregations of black drum (*Pogonias cromis*) during 2004 - 2006 in southwest Florida. Our purposes were to document trends in black drum sound production on daily and seasonal time scales and to investigate the temporal and quantitative relationships between egg production and sound production. Sound production was strongly diel, beginning near dusk and lasting for several hours. Sound production occurred from October through April and peaked in February-March, consistent with prior descriptions of the spawning season for this species based on the gonado-somatic index (GSI). To investigate the relationship between sound production and egg production, surface plankton tows were conducted hourly between 1600 - 0400 on two consecutive nights while continuous underwater acoustic recordings were made. This was done five times between January and April, 2006. Neither the timing nor quantity of sound production was correlated with egg production on a nightly basis. These results indicate that patterns in sound production are not useful for predicting patterns in egg production by black drum on a daily scale but do provide accurate characterization of spawning behavior on a seasonal basis.