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Extraction of Yields for Neutral Meson Photoproduction from the Proton and ^{3}He with the CLAS Detector at Jefferson Lab[1] RICHARD BONVENTRE, CHRISTIAN SHULTZ, MICHAEL VINEYARD, Union College, CLAS COLLABORATION — The photoproduction of π^0 and η mesons from hydrogen and ^{3}He targets over an incident photon energy range of 0.5 - 1.5 GeV is being studied using data from the CEBAF Large Acceptance Spectrometer (CLAS) at Jefferson Lab. This is part of a systematic study of meson photoproduction from the proton and light nuclear targets to investigate possible nuclear medium modifications of nucleon resonances and meson-nucleon interactions. The neutral mesons are reconstructed from their two-photon decay. Two- photon invariant mass spectra binned in incident photon energy and production angle are fitted to extract yields for π^0 and η meson photoproduction. Monte Carlo simulations are also being performed to determine the acceptance of the CLAS detector for these reactions. The analysis will be described and the procedures used to extract the yields and determine the acceptance will be discussed.

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