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**Kestutis Cesnavicius\***, University of California, Berkeley, CA 94720-3840. *p-Selmer growth in extensions of degree  $p$ .*

There is a known analogy between growth questions for class groups and for Selmer groups. If  $p$  is a prime, then the  $p$ -torsion of the class group grows unboundedly in  $\mathbb{Z}/p\mathbb{Z}$ -extensions of a fixed number field  $K$ , so one expects the same for the  $p$ -Selmer group of a nonzero abelian variety over  $K$ . This Selmer group analogue is known in special cases, and we prove it in general along with its extension to arbitrary isogenies over global fields (excluding some  $p = \text{char}K$  cases). The key tool is a version of the Cassels–Poitou–Tate sequence, which we extend to arbitrary global fields. (Received August 05, 2014)