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**Luke Morgan\*** ([luke.morgan@uwa.edu.au](mailto:luke.morgan@uwa.edu.au)). *Discrete groups of automorphism of trees.*

A  $G$ -locally-transitive graph  $D$  is called locally semiprimitive if for each vertex  $x$  of  $D$ , the stabiliser of  $x$  in  $G$  induces a semiprimitive permutation group on the neighbourhood of  $x$ . A recent conjecture of Potocnik, Spiga and Verret states that the order of vertex stabilisers in vertex-transitive locally semiprimitive graphs are bounded by a function of the valency of the graph. This generalises the long-standing Weiss and Praeger Conjectures. I'll discuss some equivalent formulations, in terms of amalgams and automorphism groups of trees. In the latter case, the problem is concerned with the discrete subgroups of the automorphism group of a tree (which satisfy the additional symmetry condition). Seen this way the question concerns the number of conjugacy classes of such subgroups. I'll give an overview on the progress on these conjectures and present some new results on the former. Plenty of examples will be discussed that demonstrate the current edge of our knowledge. I'll also discuss what is known in the locally-transitive case. (Received March 20, 2017)