Jones conjectures the arboreal representation of a degree two rational map will have finite index in the full automorphism group of a binary rooted tree except under certain conditions. We prove a version of Jones’ Conjecture for quadratic and cubic polynomials assuming the abc-Conjecture and Vojta’s Conjecture. We also exhibit a family of degree 2 rational maps and give examples of degree 3 polynomial maps whose arboreal representations have finite index in the appropriate group of tree automorphisms. (Received January 29, 2019)