The two investigated Conuber species are arranged closely to the Naticinae group. The 18S rRNA tree shows a paraphyletic arrangement of the Naticidae, too (part 5). Again, Conuber sordidus is arranged closely related to the Naticinae group while both, Conuber hebraea and Conuber stercusmuscarum are members of the Polinices taxon. Thus, based on our preliminary data the subfamilian taxa of the Naticidae cannot be arranged in monophyletic groups (except for the Naticinae). The systematic position of the naticid shell boring predator Conuber sordidus is currently still unresolved. The data show a distinct separation between the specimens of Conuber duplicata and Conuber delessertiana. The COI displays the highest differences of at least 12% while both species show 13% (relative) differences to Conuber reclusiana from the Pacific coast. The sequences show as much homology to each other as either one to the sequence of Conuber reclusiana. While the morphological data alone were not persuasive enough to accept the concept of two separate species, the molecular data presented here support the autapomorphic morphological characters and validate the separation of the two forms of Conuber duplicata at the species level. Thus, we reestablish the excavated form of Conuber duplicata as the valid species Conuber delessertiana (Recluz, 1843), distinct from Conuber duplicata (Say, 1822). Conuber fossata (Gould, 1847) and Conuber texasiana (Philippi, 1851) are junior synonyms of Conuber delessertiana.