

Online Appendix 3: Biological control agents released in South African National Parks, target species and date of introduction.

Park Name	Species	Common name	Kingdom	Class	Order	Family	Target / host species	First introduction into National Park
Addo Elephant	<i>Melanterius maculatus</i>	Acacia seed weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Acacia baileyana</i>	Unknown
Agulhas	<i>Aristaea thalassias</i>	Leaf-mining moth	Animalia	Insecta	Lepidoptera	Gracillariidae	<i>Leptospermum laevigatum</i>	Unknown
Agulhas	<i>Dasineura dielsi</i>	Small fluted galler	Animalia	Insecta	Diptera	Cecidomyiidae	<i>Acacia cyclops</i>	Unknown
Agulhas	<i>Melanterius servulus</i>	Acacia seed weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Acacia cyclops</i>	Unknown
Camdeboo	<i>Cactoblastis cactorum</i>	Cactus moth	Animalia	Insecta	Lepidoptera	Pyrilidae	<i>Opuntia ficus-indica</i>	1930s in Graaff-Reinet / Camdeboo region
Camdeboo	<i>Dactylopius austrinus</i>	Jointed cactus cochineal	Animalia	Insecta	Hemiptera	Dactylopiidae	<i>Opuntia aurantiaca</i>	1935 to the broader region
Camdeboo	<i>Dactylopius tomentosus</i>	Cochineal scale	Animalia	Insecta	Hemiptera	Dactylopiidae	<i>Cylindropuntia fulgida</i>	2008
Camdeboo	<i>Leptinotarsa defecta</i>	Satanbos leaf beetle	Animalia	Insecta	Coleoptera	Chrysomelidae	<i>Solanum elaeagnifolium</i>	1992
Camdeboo	<i>Leptinotarsa texana</i>	Texas false potato beetle	Animalia	Insecta	Coleoptera	Chrysomelidae	<i>Solanum elaeagnifolium</i>	1992
Garden Route	<i>Aphanasium australe</i>	Stem-boring beetle	Animalia	Insecta	Coleoptera	Cerambycidae	<i>Hakea sericea</i> , <i>H. gibbosa</i>	2001/2
Garden Route	<i>Carposina autologa</i>	Hakea seed-moth	Animalia	Insecta	Lepidoptera	Carposinidae	<i>Hakea sericea</i>	1985
Garden Route	<i>Colletotrichum acutatum</i>	Anthrachnose, black spot	Fungi	Sordariomycetes	Incertae sedis	Glomerellaceae	<i>Hakea sericea</i>	Cosmopolitan
Garden Route	<i>Dasineura dielsi</i>	Small fluted galler	Animalia	Insecta	Diptera	Cecidomyiidae	<i>Acacia cyclops</i>	Unknown
Garden Route	<i>Dasineura rubiformis</i>	Tiny flower galler	Animalia	Insecta	Diptera	Cecidomyiidae	<i>Acacia mearnsii</i>	Unknown
Garden Route	<i>Erytenna consputa</i>	Needlebush Fruit Weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Hakea sericea</i>	Unknown
Garden Route	<i>Melanterius acaciae</i>	Acacia seed weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Acacia melanoxylon</i>	Unknown
Garden Route	<i>Melanterius maculatus</i>	Acacia seed weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Acacia baileyana</i>	Unknown
Garden Route	<i>Melanterius servulus</i>	Acacia seed weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Acacia cyclops</i>	Unknown

Garden Route	<i>Parectopa thalassias</i>	Leaf-mining moth	Animalia	Insecta	Lepidoptera	Gracillariidae	<i>Leptospermum laevigatum</i>	Unknown
Garden Route	<i>Trichilogaster acaciaelongifoliae</i>	Long-Leaved Wattle Bud Galling Wasp	Animalia	Insecta	Hymenoptera	Pteromalidae	<i>Acacia longifolia</i>	Unknown
Garden Route	<i>Uromycladium tepperianum</i>	Port Jackson Willow Gall Fungus	Fungi	Pucciniomycetes	Pucciniomycetes	Pileolariaceae	<i>Acacia saligna</i>	Unknown
Kruger NP	<i>Cactoblastis cactorum</i>	Cactus moth	Animalia	Insecta	Lepidoptera	Pyrilidae	<i>Opuntia stricta</i>	1988
Kruger NP	<i>Calycomyza lantanae</i>	Lantana leaf-mining fly	Animalia	Insecta	Diptera	Agromyzidae	<i>Lantana camara</i>	1996
Kruger NP	<i>Cercospora piaropi</i>	Leaf spot fungus of water hyacinth	Fungi	Dothideomycetes	Capnodiales	Mycosphaerellaceae	<i>Eichhornia crassipes</i>	1992
Kruger NP	<i>Cyrtobagous salviniae</i>	Salvinia weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Salvinia molesta</i>	1992
Kruger NP	<i>Dactylopius opuntiae</i>	Opuntia cochineal scale	Animalia	Insecta	Hemiptera	Dactylopiidae	<i>Opuntia stricta</i>	1996
Kruger NP	<i>Eccritotarsus catarinensis</i>	Water hyacinth mirid bug	Animalia	Insecta	Hemiptera	Miridae	<i>Eichhornia crassipes</i>	1999
Kruger NP	<i>Falconia intermedia</i>	Lantana mirid	Animalia	Insecta	Hemiptera	Miridae	<i>Lantana camara</i>	1999
Kruger NP	<i>Hypena laceratalis</i>	Lantana defoliator caterpillar	Animalia	Insecta	Lepidoptera	Noctuidae	<i>Lantana camara</i>	Native to SA
Kruger NP	<i>Neochetina bruchi</i>	Water hyacinth weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Eichhornia crassipes</i>	1996
Kruger NP	<i>Neochetina eichhorniae</i>	Mottled water hyacinth weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Eichhornia crassipes</i>	1992
Kruger NP	<i>Neodiplogrammus quadrivittatus</i>	Stem boring weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Sesbania punicea</i>	1995
Kruger NP	<i>Neohydronomus affinis</i>	Water lettuce weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Pistia stratiotes</i>	1985
Kruger NP	<i>Niphograptia albiguttalis</i>	Water hyacinth moth	Animalia	Insecta	Lepidoptera	Crambidae	<i>Eichhornia crassipes</i>	1992
Kruger NP	<i>Niphograptia albiguttalis</i>	Water hyacinth moth	Animalia	Insecta	Lepidoptera	Crambidae	<i>Eichhornia crassipes</i>	1990
Kruger NP	<i>Octotoma scabripennis</i>	Lantana leaf-mining beetle	Animalia	Insecta	Coleoptera	Chrysomelidae	<i>Lantana camara</i>	1996
Kruger NP	<i>Ophiomyia lantanae</i>	Lantana seed fly	Animalia	Insecta	Diptera	Agromyzidae	<i>Lantana camara</i>	Unknown
Kruger NP	<i>Orthogalumna terebrantis</i>	Water hyacinth mite	Animalia	Arachnida	Oribatida	Galumnidae	<i>Eichhornia crassipes</i>	1992
Kruger NP	<i>Rhyssomatus marginatus</i>	Seed-feeding weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Sesbania punicea</i>	1990
Kruger NP	<i>Stenopelmus rufinasus</i>	Frond feeding weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Azolla cristata</i> . <i>Azolla filiculoides</i> reported at time of release	1998
Kruger NP	<i>Teleonemia scrupulosa</i>	Lantana lace bug	Animalia	Insecta	Hemiptera	Tingidae	<i>Lantana camara</i>	Unknown
Kruger NP	<i>Trichapion lativentre</i>	Bud-feeding apionid	Animalia	Insecta	Coleoptera	Apionidae	<i>Sesbania punicea</i>	1990
Kruger NP	<i>Uroplata girardi</i>	Lantana leafminer beetle	Animalia	Insecta	Coleoptera	Chrysomelidae	<i>Lantana camara</i>	1989

Mokala NP	<i>Cactoblastis cactorum</i>	Cactus moth	Animalia	Insecta	Lepidoptera	Pyrilidae	<i>Opuntia ficus-indica</i>	Unknown
Mountain Zebra	<i>Dactylopius austrinus</i>	Jointed cactus cochineal	Animalia	Insecta	Hemiptera	Dactylopiidae	<i>Opuntia aurantiaca</i>	Unknown
Mountain Zebra	<i>Leptinotarsa texana</i>	Texas false potato beetle	Animalia	Insecta	Coleoptera	Chrysomelidae	<i>Solanum elaeagnifolium</i>	Unknown
Table Mountain	<i>Melanterius servulus</i>	Acacia seed weevil	Animalia	Insecta	Coleoptera	Curculionidae	<i>Acacia cyclops</i>	Unknown

Note: Many unknown records may be due to the agents not being released directly into the park but dispersing in from adjacent areas.

Species such as *Cactoblastis cactorum*, *Dasineura* spp., *Teleonemia* spp. and many of the *Melanterius* spp. are known to disperse widely.