			5. Predator Plague Quotes
			Laurence services somewhere in the vicinity of 1000 bait stations and has recently completed a very thorough and comprehensive track
36 Apr-00	5		marking and mapping exerciseThis summer Laurence got rats to low levels despite apparent rodent plagues in many parts of the country
			Between 1989-97 the 1400-ha Mapara Wildlife Reserve received intensive goat, mustelid, possum, and rat controlAs we expected, as soon
			as bait was removed from bait stations after the 1996/97 breeding season the rat population increased rapidly. Possum population increase
			has been predictably slower and now (after 3 years) is at 16% RTC. As we predicted, these high predator numbers have meant that very few
36 Apr-00	5		kokako nests have been successful over the past 3 years: between 0-14% (according to season) of nests successfully fledged.
			Various stoat control research projects have been carried out in the Eglinton Valley since 1990. Over the past 2 years continuous, low
			intensity stoat control has been undertaken using Mk VI Fenn traps1999 was a beech mast year, and a stoat population irruption occurred
			during the following summer in response to the huge increase in rodent numbers. Kaka: An unusual feature of this breeding season was the
			high level of predation by ship rats - unrecorded in the Eglinton in previous 6 years of intensive nest monitoring Mohua: This summer we
			may not have lost any nests to stoats, but the huge increase in rat numbers and the associated rat predation is a major concernTo keep the
			stoat population at a low level with a low density of traps probably requires continual trapping. Further work is needed here on rat
			population dynamics in beech forests to determine whether lack of predators means a larger irruption in mast years or if climate is the major
38 Sep -00	1		influence.
			Mice continue to demonstrate their tenacity, or maybe toxin tolerance, by persisiting on Mokoia Island in Lake Rotorua, and Limestone Island
			in Whangarei Harbour. In both instances, it is despite two or more very determined eradication attempts. They (mice) quickly reach such low
			levels as to be impossible to detect, only to be re-detected five or six months later in the odd tracking tunnel. Normal pattern then, is for the
46 Sep -02	12		place to soon become overrun with the critters.
			We've also been out re-surveying coastal cress (Lepidium oleraceum) sites in the northern Mokohinau Islands. All our records of cress are 10
			years or older, so it was time to re-check them. Six individual plants were found on only one stack. Rat eradication some years ago has left the
49 Jun -03	4	Auckland	islands predator-free and now honeycombed with bird burrows
			A second application of Pestoff 20R (12mm diameter, 2-4 gram) Wanganui No. 7 cereal pellets containing 20ppm brodifacoum was dropped
			onto Mokoia Island (135.5 ha) by helicopter on 18 September. This will hopefully remove mice from the island. The first drop, undertaken in
42 Oct -01	6	Bay of Plenty	August reduced mouse numbers significantly, however we know from previous experience that they will increase again without control.
			Next month, an 848 ha block within the 2,136 ha Mokaihaha E.A. is to be treated to reduce possum and rat numbersGround treatment is
			planned, with bait stations laid out on a 100-metre grid. Each station will have two pulses of non-toxic pre-feed, and then be followed up with
			1080-impregnated cereal baits (Wanganui No.7). Six weeks later, a top up of pindone and feratox is planned to ensure that kokako juveniles
42 Oct -01	6	Bay of Plenty	fledge before rat numbers rise substantially.
		Big South	Big South Cape ship rat plague: by the time we reached Big South Cape (five months after the first reports) many land bird populations had
53 Jun -04	1	Cape Island	already been almost totally destroyed rats are capable of inducing ecological collapse and extinction within naïve island faunas.
			Mohua populations in the Hurunui Mainland Island have decreased significantly following a rat plague. In the North Branch, where up to 60
			birds were monitored in past seasons, only one pair was relocated. In the South Branch, where a section of the valley is intensively
			monitored, the number of pairs declined from about 16 to two. Over the last six seasons, mohua productivity and numbers were increasing as
44 Apr-02	_17	Canterbury	a result of stoat control, however rat plagues are a new phenomenon for DOC in the South Island with swift and catastrophic impacts.
52 Mar -04	19	Canterbury	The orange-fronted parakeet (OFP) population crashed in the South Branch of the Hurunui during the rat plague of the 2000/01 summer.

	1		
52 1 04	1,2		The beech mast this season has extended the breeding season for the parakeets which is fantastic, but also means that a predator plague is
53 Jun -04	13	Canterbury	likely to occur in the spring and summer.
FF D 04	١.,		With rat numbers on the rise, the Hawdon predator control regime has geared up a couple of notches. Staff have been busy putting out extra
55 Dec -04	14	Canterbury	bait stations and adding extra bait bag lines to the valley, in the hope of curbing the rising rat numbers.
			The restoration phase of the Boundary Stream Mainland Island Project continues to gain momentum as the sustained reduction of pests and
		East Coast/	predators, produces visible changes to both plant and birdlife Given the additional pressure from rats this season which were implicated in
36 Apr-00	10	Hawke's Bay	the higher number of failed nests this year, a 55% nesting success is considered a favorable result.
			The Mt Stokes mohua population has dropped dramatically. At the end of the 1998-99 summer there were around 90 birds, but now
		Nelson/	numbers are estimated at 27, of which only 6 are female. Predation by ship rats is thought to be the cause of the sudden decline Intensive
36 Apr-00	16	Marlborough	trapping of stoats had been sufficient to protect the birds because rats had almost never been recorded at this altitude on Mt Stokes.
		Nelson/	The apparent loss of the Mt Stokes mohua has been devastating. Numbers increased spectacularly with stoat control over the past 10 years,
40 Mar-01	6	Marlborough	but an unprecedented irruption of ship rats during the winter of 1999 spelt their doom.
			The latest field trip to the <i>Placostylus ambagiosus</i> subsp. <i>Paraspiritus</i> colony confirmed that there was a massive die-off there a couple of
			years back, and there are now fewer snails than when we started protection work in 1988. None of the other colonies have crashed. As the
			common garden snail also occurs here and also suffered a big die-off we are speculating that perhaps a disease event occurred. Norway rats
			invaded a small island (Snail Rock) off Purerua Peninsula about six months ago and seriously depleted the snails (P. hongii) there. Instead of
43 Dec-01	1	Northland	well in excess of 100 snails, just 15 were found this time
			quarterly mouse tracking lines and beech seed fall in the Caples and Dart Valleys have been completed. Both indices are up with mouse
			tracking rates averaging 43% in the Caples Valley and 73% in the Dart. Beech seed fall in the Dart is tapering off after reaching 3968 seed per
38 Sep -00	11	Otago	square metre in March and 2336 in May this year. This is the third year that large numbers of beech seeds have been produced in the Dart.
·			After the last mast event numbers of mohua in the Caples have decreased dramatically. Mice numbers have bottomed out but recent mice
47 Dec -02	16	Otago	tracking has shown a 30% tracking rate in the Caples.
			We continue to have elevated numbers of mice in tracking tunnels and traps in the Catlins mohua areas. A number of rats have also turned
50 Sep -03	15	Otago	up. As we did not have a beech seedfall event last autumn, the jury is out on what is happening and whether it will lead to a stoat eruption
·			Beech seed and rat and stoat numbers are all up in the Catlins Coastal Otago staff are developing an operational plan for the Catlins to be
			able to implement control work when funds become available. The size of the operational area (12,600 ha) makes the planning phase of the
			operation just as difficult as any operational actions. Our focus is the protection of the large number of mohua found here (c. 2,000 birds).
53 Jun -04	15	Otago	The key threat to plan for is stoat irruptions, but rats are also going to be part of the plan
			funds to deal with the stoat irruption predicted in the core mohua habitat this summer. [staff are] now finding contractors and laying out
54 Sep -04	14	Otago	lines for tracks so we can get the infrastructure in place well before the stoats are about this summer
			It's all go at the Operation Ark site in the Catlins. We received money for stoat control but while in the process of preparing an operation plan,
			issues concerning rats arose; an observed doubling of rat abundance occurred between the start and end of October. Additional funds were
			secured for rat control leading to a big planning effort for a poisoning operation in two discrete areas with highest mohua densities. A team is
55 Dec -04	16	Otago	now on the ground implementing that plan and getting baits out
39 Dec-00	15		Mohua Rat numbers are very high in the Eglinton Valley and appear to be causing heavy predation of mohua in the Eglinton this year.
39 Dec-00	17		Mohua: The Blue Mountains annual counts of mohua were down by between one third and one half on what would have been expected. This
33 500 00		Joacinana	monda. The side mountains drinked counts of monda were down by between one third and one half on what would have been expected. This

			may have been a result of weather conditions at the time and the fact that the birds were nesting. Numbers in Western Southlandwere also
	-		down on last year. However, the numbers of stoats caught in the August trapping was higher than the numbers last year.  An experimental stoat control programme began in the Eglinton Valley during December 1997Consecutive beech mast events have
			produced consecutive stoat plagues. Ship rat numbers have also reached very high numbers following these two beech mast eventsstaff
			have been monitoring kaka and mohua in the Eglinton Valley over the last few years. During the first stoat and rat plague (1999/00 summer)
			they recorded little if any predation of nesting mohua or kaka by stoats, however they recorded rats preying upon approximately 30% of
42 0 - 01	11	Carrelalanad	nesting mohua. There was some concern that controlling stoats to low levels over an extended period in beech forest was contributing to this
42 Oct -01	14	Southland	increase in rat numbers.
26.4.00	1,,	Tongariro/	Dactylanthus: We are expecting a lot of damage to flowers from the high numbers of rodents left over from the previous season's mast
36 Apr-00	12	Taupo	seeding.
			Four months after an effective possum and rat knock-down by a 20,000-ha aerial 1080 operation over Tongariro Forest, stoats reappeared in
		Tongariro/	the centre of the forest and began killing kiwi chicks. So far five of the 11 chicks have been predated, and all in the centre of the treatment
44 Apr-02	9	Taupo	area Rodent numbers remain surprisingly low, with the same tracking index recorded in February as in December (< 2.0%) [April 2002]
			radio tagged kaka in the Waipapa Restoration Area: A dramatic increase in fledgling mortality has been noted coinciding with a change to the
			pest control regime. Seventeen female chicks were monitored since the breeding season and excluding missing birds, eleven of fourteen
			fledglings have died. Nine of these were probably (some certainly) killed by stoats. And just to show that the predators are not targeting birds
			wearing radio transmitters, one observation included finding the remains of two untagged kaka within the same den as a dead tagged bird.
			So the results of a productive nesting season for kaka in the Waipapa has very much been let down by poor fledgling survival. The pest
			control regime was an aerial 1080 pollard operation in October. While this did offer protection during the time birds were nesting, as pest
47 Dec -02	4	Waikato	numbers increased, the level of protection decreased toward the end of the season when fledgling kaka become vulnerable.
			taiko: Cat trapping has been underway in the area since September, and 25 cats have been caught so far. Early indications are that there are
39 Dec-00	9	Wellington	high rat numbers in the areas
			Okarito Kiwi Zone: results from the rodent lines in March show that there has been a huge increase in rat abundance between March (3.5%
			tracking index) and August (80% tracking index). This correlates with our casual observations from the stoat trapping program which have
			indicated a much higher rat trapping rate than previously. We have also been noticing the capture of lactating female rat's right throughout
			the winter months. It seems that rat numbers are higher within the sanctuary (80% tracking rate) as opposed to in the two areas in which do
46 Sep -02	8	West Coast	not have stoat trapping (38.6%)
•			The current rowi breeding season has been very disappointing. All 14 of the monitored chicks were dead by early January, with stoat
			predation being the major cause. A heavy rimu fruiting mast during autumn 2002, coupled with a mild winter caused a huge irruption of rats
			and stoats, coincided with the height of the rowi breeding season. Stoats completely saturated the core area during December and January,
			despite the rowi team doing extra buffer trap checks. In December 2002 and January 2003 137 and 173 stoats were caught respectively. This
			is compared with 23 and 55 for the same months the previous season. Similarly, rat numbers were 5-10 times higher this season compared
48 Apr -03	12	West Coast	with the same time last season.
3	1	333 3333	The stoat control line in the Landsborough Valley has recently been extended down to Harper Flat, just above the confluence with the Clarke
	1		River. There are now 189 tunnels with two traps per tunnel in the valley, with 41 of these on the recent extension. On the last few trips it has
52 Mar -04	21	West Coast	been extremely encouraging to notice that mohua are more abundant Following a beech mast in 2000 and corresponding stoat plague in
JE IVIUI UT		**C3t Coust	Seen extremely encouraging to notice that monda are more abundants. Following a secon mast in 2000 and corresponding stoat plague in

			2001, stoat numbers have steadily declined in 2002/03. Seven stoats were caught over a 10 week period this year compared with 23 from the same period in 2001
			Rat numbers increased following a heavy kahikatea fruiting, which in turn increased the stoat numbers in the Haast Tokoeka Sanctuary
52 Mar -04	21	West Coast	compared to previous years.