

Management Plan for the Commercial Harvest and Export of
Brush-tail Possums in Tasmania

ANNUAL REPORT 2011-2012

Summary

The Tasmanian Department of Primary Industries, Parks, Water and Environment (DPIPWE) is responsible for the sustainable management and protection of the State's natural and cultural assets for the benefit of Tasmanian communities and the economy. This includes the management of wildlife populations under the *Nature Conservation Act 2002* and its associated Regulations.

Common brushtail possums (*Trichosurus vulpecula*) are taken in the wild in Tasmania for commercial purposes in areas where they are causing damage to crops. The commercial industry produces a variety of products, however these can only be exported overseas if the possums are taken under the conditions of a management plan approved under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Accordingly, a management plan has been developed by the Wildlife Management Branch (WMB) of the DPIPWE and the Commonwealth Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) for the commercial harvest of the Tasmanian population of the common brushtail possum. This plan (*Management Plan for the Commercial Harvest and Export of Brushtail Possums in Tasmania, 2010-2015*) outlines the management regime in place and has been written to demonstrate how it also meets the requirements of the EPBC Act for the purpose of commercial export.

One of the requirements of the plan is annual reporting of activity under the plan by the DPIPWE to the DSEWPC. This document fulfills that requirement.

Contents

MANAGEMENT PLAN FOR THE COMMERCIAL HARVEST AND EXPORT OF BRUSHTAIL POSSUMS IN TASMANIA 1

 ANNUAL REPORT 2011-2012..... 1

 Summary 2

INTRODUCTION 4

REQUIRED INFORMATION 5

 Details on the number of staff and the proportion of their time spent on compliance activities 5

 Instances of non-compliance with the requirements of the management plan 5

 Penalties imposed for non-compliance..... 5

 Final statistics on numbers of brushtail possums taken in the non-commercial harvest..... 5

 Final statistics on the amount of 1080 used and number of brushtail possum carcasses recovered following any poison operations..... 8

 Final statistics on numbers of brushtail possums harvested within the allocated commercial quota 8

 Final statistics on the export of brushtail possum products. 9

ATTACHMENT A: AN UPDATE OF OPERATION AGAINST SPECIFIED PERFORMANCE MEASURES 10

APPENDIX 1: CURRENT BRUSHTAIL POSSUM POPULATION TRENDS 16

 Central Region 16

 South East Region..... 17

 North East Region..... 17

 North West Region 18

Introduction

The Tasmanian Department of Primary Industries, Parks, Water and Environment (DPIPWE) is responsible for conservation and protection of the State's natural and cultural heritage for the benefit of the Tasmanian community. The management of wildlife populations is provided for by the *Nature Conservation Act 2002* and its associated Regulations.

Common brushtail possums (*Trichosurus vulpecula*) are taken in the wild in Tasmania for commercial purposes in areas where they are causing damage to crops. The commercial industry produces a variety of products, however these can be exported overseas only if the possums are taken under the conditions of a management plan approved under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Accordingly, a management plan was developed by the Wildlife Management Branch (WMB) of DPIPWE for the commercial harvest of the Tasmanian population of the common brushtail possum. The management plan outlined a management regime that satisfied the requirements of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) for the purposes of export.

The *Management Plan for the Commercial Harvest and Export of Brushtail Possums in Tasmania 2010-2015*, (the plan), relates to the commercial harvesting of brushtail possums that occurs under Commercial Brushtail Possum permits. The non-commercial culling of brushtail possums for crop protection is not managed under the plan however the number of possums taken non-commercially is taken into account in the management of the commercial harvest. The aim of the plan is to manage brushtail possum populations on a regional basis to ensure their conservation across their existing geographical range.

The plan requires an annual report to be provided to the Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) four months after the conclusion of the previous Quota Year. The plan specifies that the annual report is to provide statistics on take and details management actions undertaken during that previous Quota Year, including:

1. Details on the number of staff and the proportion of their time spent on compliance activities;
2. Instances of non-compliance with the requirements of the management plan;
3. Penalties imposed for non-compliance;
4. An update of operation against specified performance measures;
5. Final statistics on numbers of brushtail possums taken in the non-commercial harvest;
6. Final statistics on the amount of 1080 used and number of brushtail possum carcasses recovered following any poison operations;
7. Final statistics on numbers of brushtail possums harvested within the allocated commercial quota; and
8. Final statistics on the export of brushtail possum products.

This report fulfils this requirement and is presented as the Annual Report for the 2011-2012 Quota Year.

Required Information

The following sections list the various matters to be addressed and provide an update on each matter. Each heading relates to one of the points listed above, while the update on specified performance measures referred to at point 4 above is provided as Attachment A.

1. Details on the number of staff and the proportion of their time spent on compliance activities

This trade management plan was approved in October 2010 and only limited market development has occurred subsequent to that. Consequently, there has been a low level of activity under this plan in this reporting period.

Nevertheless, general wildlife compliance activities have been undertaken by Wildlife Enforcement Officers, across those parts of Tasmania where possums are harvested, at levels equal to that of previous years. In total, three fulltime Wildlife Rangers, three part time Wildlife Rangers and one Section head are involved in regular wildlife compliance work, including for brushtail possum, across Tasmania. Enforcement and compliance activities are undertaken on an intelligence driven basis.

Only one (1) wild game meat processing plant was registered by the Australian Quarantine Inspection Service (AQIS) during 2011-2012. This was audited according to normal export Tier 1 accreditation requirements by AQIS; this included three (3) half-day audits in the reporting period.

2. Instances of non-compliance with the requirements of the management plan

There has been one instance detected of non-compliance with the requirements of this management plan.

This instance involved a failure to comply with a condition of a permit to use 1080 poison to take protected wildlife. The offence related to not burying or incinerating carcasses of poisoned wildlife, including brushtail possums.

3. Penalties imposed for non-compliance

The one conviction for non-compliance with the requirements of this management plan resulted in a penalty of \$1,500 plus court costs.

4. Final statistics on numbers of brushtail possums taken in the non-commercial harvest

Statistics on the number of brushtail possums taken in the non-commercial harvest are based on crop protection permit returns provided by permit holders to the DPIPW upon expiry of the permit. At the time of analysis, a significant proportion of crop protection permits issued during 2011/12 remain current and are therefore not due to be returned. In addition, landholders who may initially neglect to provide a return upon expiry of the permit are required to do so when

they next request a permit, resulting in a lag effect. Because the return rate is less than 100% at the time of reporting an estimate of total take is calculated and included in the statistics provided below.

To provide historical context to the take reported for this year, comparable figures are provided for the previous nine years. Table 1 provides the state-wide statistics, while Tables 2 to 5 provide the non-commercial take for each of the four quota regions.

Table 1: State-wide estimates of the number of brushtail possums taken by non-commercial shooting under crop protection (CPN) permit in Tasmania.

Year	Number of property permits	Reported take	Total estimated CPN take	% returns
2002-03	1642	137702	217829	63.22%
2003-04	1529	136196	206386	65.99%
2004-05	1573	174661	262659	66.50%
2005-06	1572	216781	295559	73.35%
2006-07	1689	285103	338635	84.19%
2007-08	1974	295488	369407	79.99%
2008-09	1675	245888	301289	81.61%
2009-10	1584	167374	203469	82.26%
2010-11	1696	152901	208624	73.29%
2011-12*	1824	68492	120821	56.69%

*Preliminary results as at end September 2012

Table 2: Estimate of numbers of brushtail possum taken by non-commercial shooting under crop protection (CPN) permit in Central Region.

Year	Number of property permits	Reported take	Total estimated CPN take	% returns
2002-03	196	45888	58026	79.08%
2003-04	198	41204	55879	73.74%
2004-05	169	33897	47344	71.60%
2005-06	180	39194	54269	72.22%
2006-07	192	49961	58850	84.90%
2007-08	222	49746	56634	87.84%
2008-09	196	31298	36298	86.22%
2009-10	213	29468	34487	85.45%
2010-11	223	37504	52600	71.30%
2011-12*	204	10672	22444	47.55%

* Preliminary results as at end September 2012

Table 3: Estimate of numbers of brushtail possum taken by non-commercial shooting under crop protection (CPN) permit in South East Region.

Year	Number of property permits	Reported take	Total estimated CPN take	% returns
2002-03	577	58314	74276	78.51%
2003-04	562	53174	67918	78.29%
2004-05	595	66881	83078	80.50%
2005-06	608	83045	102834	80.76%
2006-07	618	99123	117353	84.47%
2007-08	658	111488	130998	85.11%
2008-09	604	67860	79898	84.93%
2009-10	551	58464	68249	85.66%
2010-11	591	39172	49362	79.36%
2011-12*	618	21287	30954	68.77%

* Preliminary results as at end September 2012

Table 4: Estimate of numbers of brushtail possum taken by non-commercial shooting under crop protection (CPN) permit in North East Region.

Year	Number of property permits	Reported take	Total estimated CPN take	% returns
2002-03	522	27108	50901	53.26%
2003-04	532	36857	66694	55.26%
2004-05	515	63564	113271	56.12%
2005-06	497	83477	118200	70.62%
2006-07	560	119060	138615	85.89%
2007-08	613	113041	139706	80.91%
2008-09	582	131308	161567	81.27%
2009-10	573	64461	80122	80.45%
2010-11	612	68201	94646	72.06%
2011-12*	653	31670	60469	52.37%

* Preliminary results as at end September 2012

Table 5: Estimate of numbers of brushtail possum taken by non-commercial shooting under crop protection (CPN) permit in North West Region.

Year	Number of property permits	Reported take	Total estimated CPN take	% returns
2002-03	343	6392	14424	44.31%
2003-04	237	4961	9114	54.43%
2004-05	252	9569	16982	56.35%
2005-06	260	7546	11609	65.00%
2006-07	300	16659	20152	82.67%
2007-08	325	19157	23855	80.31%
2008-09	270	14968	19908	75.19%
2009-10	233	14808	18650	79.40%
2010-11	265	7678	12039	63.77%
2011-12*	311	4740	8880	53.38%

5. Final statistics on the amount of 1080 used and number of brushtail possum carcasses recovered following any poison operations

The number of properties on which 1080 was used declined in the quota year, from 26 properties in 2010/11 to 14 in 2011/12. The amount of 1080 used decreased from 0.93 kg to 0.42 kg (see Table 6).

Due to the mobility of wildlife following consumption of 1080 and prior to death, and the resulting difficulty in locating the carcasses of poisoned animals, the number of carcasses collected following the use of 1080 poison gives little indication of the number killed. Instead, 1080 usage is provided below, as it is a more reliable indicator of potential impact on the population than the number of carcasses collected.

Table 6: Annual Usage of 1080 Poison in Tasmania,

Year	Number of property permits issued	1080 usage (kg)
2002-03	682	10.4
2003-04	436	6.1
2004-05	426	8.1
2005-06	287	5.0
2006-07	52	1.4
2007-08	49	0.7
2008-09	73	1.0
2009-10	46	0.7
2010-11	26	0.93
2011-12	14	0.42

6. Final statistics on numbers of brushtail possums harvested within the allocated commercial quota

Since the plan was approved in 2010 the export market has yet to be substantially developed, consequently, the commercial harvest has been considerably below the available quota in each of the years the plan has been in place. For the quota year 2011-12 quota utilisation ranged from 0.9% to 38.3% across the four management regions (see Table 7), with the state wide total harvest being 7.3% of the total quota.

Table 7: Total number of brushtail possums harvested in each quota region under the commercial quota

Quota Region	Male (or sex unknown)	Female	Total Harvest (Region's quota*)	% of Available Quota Harvested
South East	256	195	451 (15 576)	2.9
Central	2377	809	3 186 (8 316)	38.3
North East	120	136	256 (24 572)	1.0
North West	40	16	56 (5 953)	0.9
Tasmania (total)	2 793	1 156	3 949 (54 372)	7.3

*As a consequence of an error being identified in the permit database in July 2012, the quota for 2011/12 has been retrospectively adjusted from the figure of 60 065 provided in the 2011/12 Quota Report. Based on the adjusted data the total quota declined to 54 372 and the regions were also adjusted. The database error has been rectified and will not impact on subsequent quota calculations.

Final statistics on the export of brushtail possum products.

Table 8 highlights that, while the amount of fur and number of possum carcasses exported increased from the previous year, export activity is still at a very low level.

Table 8: Total number of brushtail possums exported as either meat or fur

Year	Possums Exported as Fur	Possums Exported as Meat
2010-11	491	0
2011-12	670	536

Attachment A: An update of operation against specified performance measures

The following table describes the actions undertaken in relation to each of the Performance Measures specified in the plan.

Section	Performance measures	Response
5. Conservation of brushtail possums in Tasmania	<ul style="list-style-type: none"> • Brushtail possums are not elevated to a higher conservation status due to factors attributed to the commercial harvest; • Management is modified should the conservation status or distribution of brushtail possums in Tasmania change through factors not attributable to the commercial harvest; • The system of reserves in Tasmania where brushtail possums cannot be harvested continues to be identified and managed as an important refuge for this commercially harvested species. 	<ul style="list-style-type: none"> • Commercial harvesting of brushtail possums in the reporting period had no impact on the conservation status of the species; it represented only 3.2 % of the total estimated harvest (i.e. commercial + crop protection harvest). • No modifications required. • The proportion of Tasmanian land reserved and not subject to possum harvesting remains stable (as at 30th June 2011 it was 45.1% of the state).
6. Non commercial culling of possums	<ul style="list-style-type: none"> • Records are entered into a database system in a timely manner and analysed quarterly; and • At least 70% of take returns from expired crop protection permits are entered within four months of the end of the financial year. If the percentage drops below 70% then additional steps will be undertaken to correct the situation. 	<ul style="list-style-type: none"> • Records of 1080 use were entered and analysed monthly. • As at end September 2012 the following percentages of permits had been returned and the reported take entered. Most permits not returned were still current and therefore not required to be returned. All returns are entered within one week of receipt.

		<p>Central – 47.6%</p> <p>North east – 52.4%</p> <p>North west – 53.4%</p> <p>South east – 68.8%</p> <ul style="list-style-type: none"> •Less than 70% of returns are typically received by the end of the annual reporting period. However, over 70% of returns are received for all regions by the subsequent year (except NW this year). The lag partly reflects that some permits are current across financial years and reporting periods. •Obtaining more rapid take return rates has been an ongoing issue for DPIPW. New permits are generally not issued until outstanding returns are provided. •The permit database is currently being redeveloped to enable more timely returns to be obtained.
7. Management strategies	<ul style="list-style-type: none"> •The extent of hunter compliance with brushtail possum harvesting and licensing requirements is measured at or near 100%. 	<ul style="list-style-type: none"> •Routine wildlife compliance activities were maintained across the possum harvest region. No instances of a hunter failing to comply with harvesting and licensing requirements were detected.
7.2 Control of the trade in brushtail possum products.	<ul style="list-style-type: none"> •At least two periodic inspections, to ensure compliance, of each licensed dealer and processor per annum; •The extent of compliance with brushtail possum processing and trading requirements is measured at or near 100%; and 	<ul style="list-style-type: none"> •Audits have been undertaken by AQIS and the Food Safety Branch of DPIPW as required (this included three half-day audits in the reporting period). •No instances of failing to comply with processing and trading requirements were detected.

	<ul style="list-style-type: none"> •Focus of compliance efforts on areas in which past breaches have been recorded. 	<ul style="list-style-type: none"> •Compliance efforts continue to focus on compliance with permit conditions.
7.4.4 Special quotas	<ul style="list-style-type: none"> •Annual regional commercial quotas are set in accordance with the provisions of this management plan; •DSEWPC is advised of the commercial harvest quotas for the following financial year by 1 June; and •Special commercial quotas are set and utilised in accordance with the provisions of this management plan and DSEWPC is notified if and when any special quotas are issued. 	<ul style="list-style-type: none"> •Annual regional commercial quotas were set in accordance with the provisions of this management plan and reported to DSEWPC in June 2012. •DSEWPC was advised of the commercial harvest quota for 2012-13 prior to June 1 of 2012. A quota report was submitted to DSEWPC in May 2012 and finalised in August 2012. •No special quotas were required in the reporting period as the trigger point which requires special quotas to be set was not reached in any region.
7.5 Monitoring of brushtail possum take	<ul style="list-style-type: none"> •Records entered into database system and analysed quarterly, with monthly analysis carried out once quotas are approached within 85%; •Maintain an up-to-date database to inform quota management as required; and •The annual number of commercially-harvested possums is within the allocated commercial quota issued for that quota year. 	<ul style="list-style-type: none"> •Records are entered into database system as they are submitted by permit holders and analysed quarterly. Monthly analysis has not yet been required due to the harvest not having reached 85% of total quotas. •An up-to-date database is maintained by DPIPW and used to inform quota management. •The number of commercially harvested possums was within the allocated commercial quota for the 2011-12 quota year. The quota was 54 372* possums and the harvest was 3 949 possums, or 7.3% of the available quota.

<p>7.6 Monitoring of regional brushtail possum populations</p>	<ul style="list-style-type: none"> •Population surveys are conducted in accordance with the management plan and between November and February or April and May each Quota Year throughout the life of this plan; •Population trends determined and monitored; •Sudden or acute changes in the sex ratio of harvested possums, as ascertained from permit returns, are investigated to determine where practicable the cause of the change; and •Monitoring results published in the Annual Quota Report to DSEWPC. 	<ul style="list-style-type: none"> •Population surveys were conducted in accordance with the management plan between November 2011 and February 2012. •Population trends were determined and monitored (see Appendix 1: Current brushtail possum population trends). •No sudden or acute changes in the sex ratio of harvested possums have been detected. •Monitoring results are provided as Appendix 1 in this annual report and were also provided in the Annual Quota Report in June 2012.
<p>8. Animal welfare</p>	<ul style="list-style-type: none"> •The extent of compliance with the requirements of commercial brushtail possum hunting permits determined through compliance activities and is at or near 100%; •All harvesters operating under a commercial brushtail possum permit and selling carcasses for meat processing are accredited for competence in shooting; and •A code of practice for the humane shooting of brushtail possums for commercial or crop-protection in Tasmania is developed within the first year of this plan. 	<ul style="list-style-type: none"> •Routine wildlife compliance activities were maintained across the possum harvest region. No instances of failing to comply with animal welfare requirements were detected. •Processors are required to obtain possums carcasses only from accredited shooters. •A '<i>Code of Practice for Shooting Brushtail Possums in the Field in Tasmania</i>' has been accepted by the Tasmanian Animal Welfare Advisory Committee and approved by the Minister as an

		Animal Welfare Guideline under Section 44B of the <i>Animal Welfare Act 1993</i> .
9. Compliance and enforcement	<ul style="list-style-type: none"> •Details on the number of staff and the proportion of their time spent on compliance activities are recorded in the annual report to DSEWPC; •All human consumption and pet food premises inspected by the food safety branch at least once annually; •Instances of non-compliance with the requirements of the Management Plan are monitored and acted upon; and •Reports of unlicensed activities and activities in breach of licence conditions are investigated to the fullest extent possible, and where sufficient evidence is available offenders are issued with a corrective action request or prosecuted as appropriate. 	<ul style="list-style-type: none"> •Three fulltime Wildlife Rangers, three part time Wildlife Rangers and one Section head are involved in regular wildlife compliance work across Tasmania. Enforcement and compliance activities are undertaken on an intelligence driven basis. •All meat processing premises have been audited as required. Domestic game meat works licensed to do possum audited twice per year (7 sites), pet food works audited 1 per year (4 sites). •One instance of non-compliance with the requirements of the Management Plan was detected and the offender charged, convicted and fined. •A report of an unauthorised activity was received and the offender charged, convicted and fined.
10. Community awareness	<ul style="list-style-type: none"> •Landholders, commercial possum industry members, interested groups, government and the public have adequate opportunity to comment on possum management in Tasmania through placement of monitoring results and quotas on the DPIPWE and DSEWPC websites; and 	<ul style="list-style-type: none"> •Prior to October 2010, government, stakeholders and the public had opportunity to comment on possum management in Tasmania through placement of the Management Plan, including recent monitoring results, on the DSEWPC website. Current quotas are also available on the DSEWPC website. The Annual Report will also be placed

	<ul style="list-style-type: none"> •Publicly available information on possum management is distributed to interested parties as soon as practicable after such a request. 	<p>on the DPIPWE web site after it has been accepted by DSEWPC</p> <ul style="list-style-type: none"> •DPIPWE complies with the Tasmanian <i>Right to Information Act 2010</i> with information on possum management being distributed to interested parties upon request.
11.2 Annual Report	<ul style="list-style-type: none"> •An Annual Quota Report is provided to DSEWPC by 1st June; and •An annual report is provided to DSEWPC by 31st October. 	<ul style="list-style-type: none"> •An Annual Quota Report for the 2012-13 quota year was provided to DSEWPC prior to 1st June 2012. •This report fulfils this requirements for the 2011/12 quota year.
11.3 Review	A review of this plan has commenced by 1 st July 2014.	<ul style="list-style-type: none"> •A review in accordance with this performance indicator is scheduled to be completed as required.

*As a consequence of an error being identified in the PELIS database in July 2012, the quota for 2011/12 has been retrospectively adjusted here from the figure of 60 065 provided in the 2011/12 Quota Report. Based on the adjusted data the quota declined to 54 372. The database error has been rectified and will not impact on subsequent quota calculations.

APPENDIX 1: Current Brushtail Possum Population Trends

As required by the *Management Plan for the Commercial Harvest and Export of Brushtail Possums* (the plan), regional brushtail possum population trends continued to be monitored through the annual program of statewide spotlight surveys. Referred to as the 2011 surveys, the most recent set of surveys were undertaken during the period November 2011 to February 2012.

Monitoring of trends in regional brushtail possum populations is undertaken through a system of standardised spotlight survey counts performed annually on mainland Tasmania. The standardised surveys are carried out in accordance with the method set out in the *Tasmanian Spotlight Survey Manual* (Hocking 1992) and analysed in accordance with section 7.6 of the plan. The results of these surveys provide the basis for the regional commercial quotas set under the plan. Analysis of the current population trend for each region (with the exception of South West Region due to the limited data available and the absence of commercial activity in this region) is provided below.

Central Region

In the spotlight surveys undertaken in the Central Region in 2011, the observed density of brushtail possums increased slightly to 30.7/km² (from 29.6/km²), nonetheless the three-year Exponentially Weighted Moving Average (EWMA) decreased to 37.2/km². This continues a declining trend evident over several years (see Figure 1). However, the change in the three-year EWMA lags annual changes and the EWMA is still considerably higher than the trigger point (density = 20/km² or below) that initiates additional management controls.

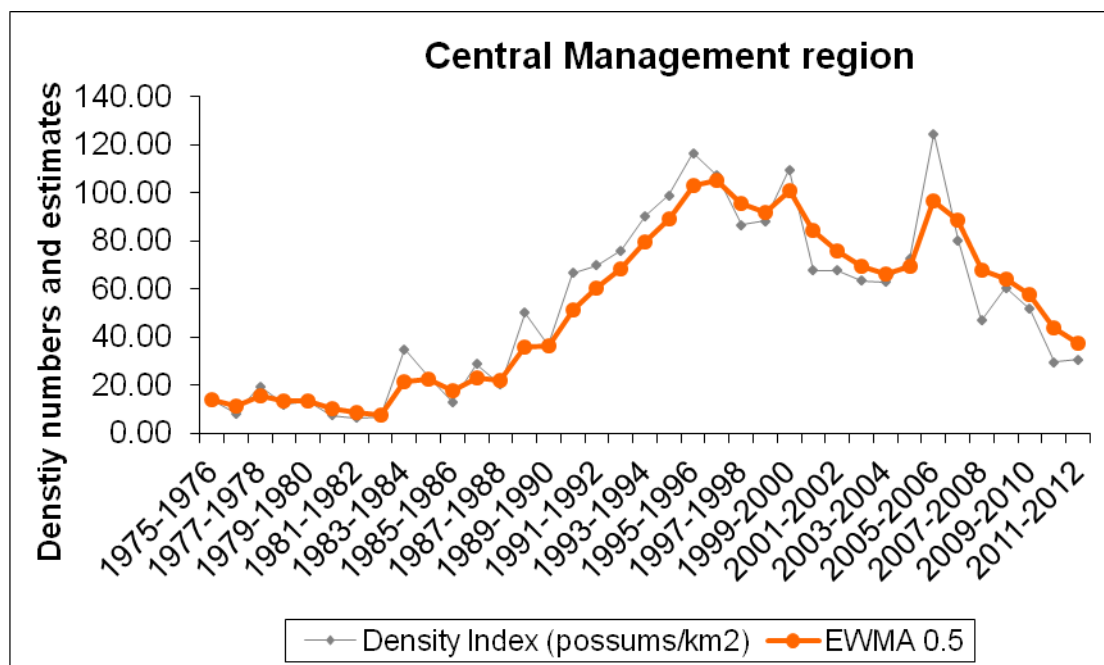


Figure 1 Central Region historical and current Density Index and three-year density trend

South East Region

In the South East Region the observed density of brushtail possums increased to 36.8/km², and the three-year Exponentially Weighted Moving Average (EWMA) increased to 30.2/km². This has reversed a declining trend evident over several years (see Figure 2). The EWMA is well above the trigger point (density = 20/km² or below) that initiates additional management controls (section 2.1).

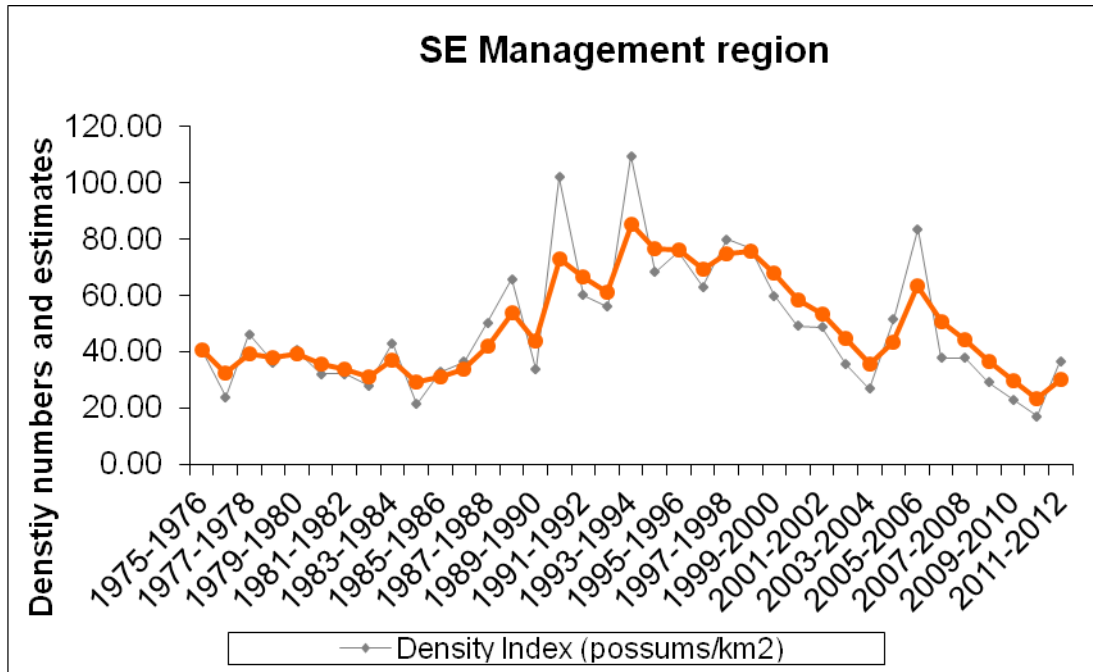


Figure 2 South East Region historical and current Density Index and three-year density trend

North East Region

In the North East Region the observed density of brushtail possums increased to 24.5/km², and the three-year Exponentially Weighted Moving Average (EWMA) increased to 23.0/km² (see Figure 3 on the following page). This has reversed a declining trend evident over several years consequently the EWMA remains above the trigger point (density = 20/km² or below) that initiates additional management controls.

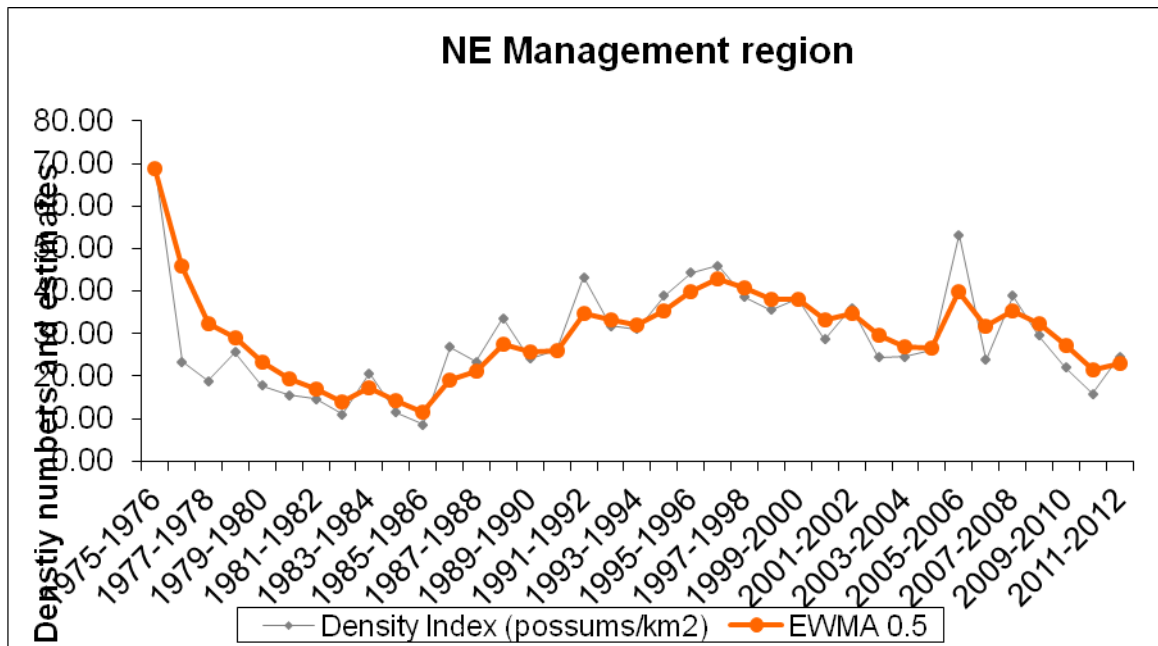


Figure 3 North East Region historical and current Density Index and three-year density trend

North West Region

In the North West Region the observed density of brushtail possums increased slightly to 23.4/km² (from 22.4/km²), and the three-year Exponentially Weighted Moving Average (EWMA) decreased slightly to 23.7/km² (see Figure 4). The EWMA remains above the trigger point (density = 20/km² or below) that initiates additional management controls.

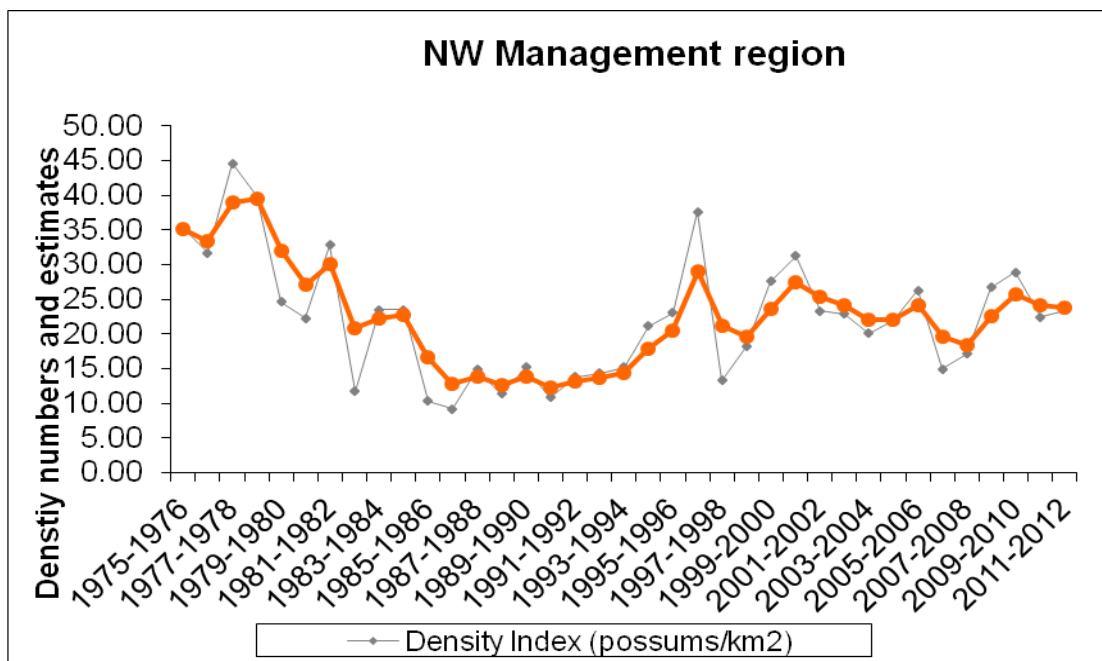


Figure 4 North West Region historical and current Density Index and three-year density trend