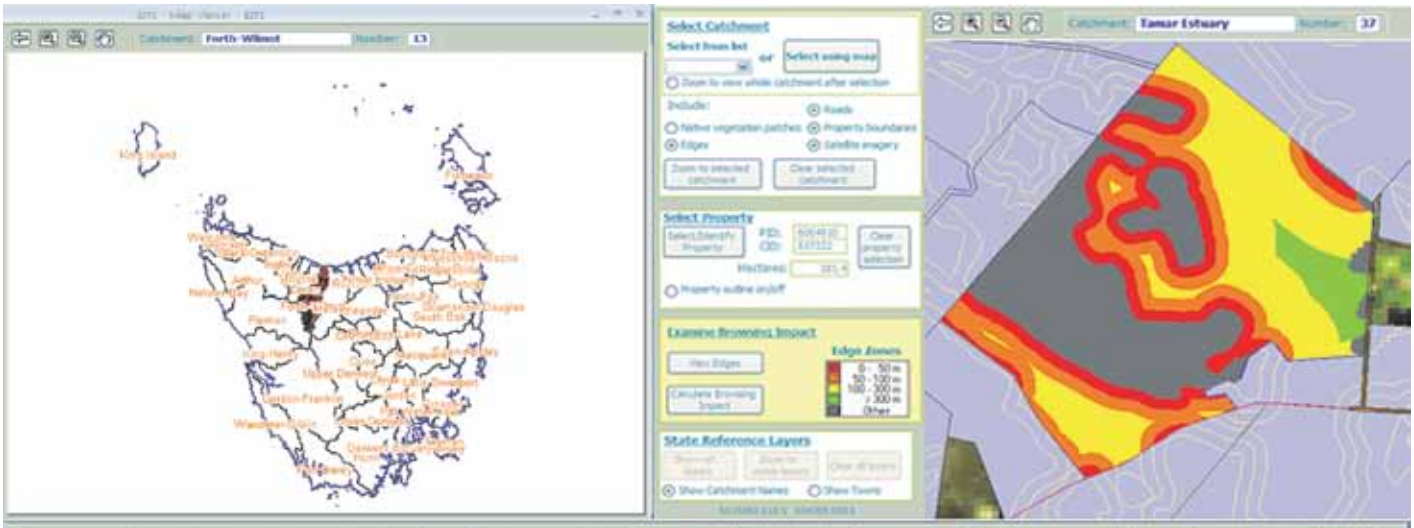
Estimating Pasture Loss with BITE (Browsing Impact on Tasmanian Ecosystems)

BITE

As part of the Alternatives to 1080 Program, Prof. Tony Norton of TIAR has developed a tool called BITE (Browsing Impact on Tasmanian Ecosystems), which you can use to estimate your pasture losses from wildlife browsing.

At its simplest the model requires you to nominate your enterprise type (dairy, beef or sheep) and then locate and select your property and based on some catchment level assumptions about pasture growth, wildlife browsing impacts and pasture utilisation derived from a number of research projects, BITE will produce an estimate of pasture losses for your property. However, the model is much more powerful than this, allowing you to modify all assumptions from pasture growth, pasture value and browsing impacts to better match your own knowledge of your property and derive some educated estimates of how much browsing damage could be costing you.

BITE can be accessed by contacting a Game Management Officer within the Wildlife Management Branch.



Catchment: Tamar Estuary CAT_ID: 37 Property CID: Property PID: Property area within catchment: 186.5 ha

Enterprise: Beef $ Conversion: 0.23 Pasture Growth: 7782.99 kg DM per hectare per year Pasture Use factor: 0.6 Scenario: Baseline

Edges	Edge Size	Pasture eaten by Wildlife	Net Pasture Growth (per hectare annually)	Pasture Loss from Browsing (per hectare annually)	
0 - 50 metres:	15.81 ha	67.00 %	0.0 kg DM	3128.8 kg DM	$719.62
50 - 100 metres:	14.89 ha	67.00 %	0.0 kg DM	3128.8 kg DM	$719.62
100 - 300 metres:	60.46 ha	34.00 %	1525.5 kg DM	1587.7 kg DM	$365.18
>300 metres:	22.69 ha	5.00 %	2879.7 kg DM	233.5 kg DM	$53.70
Totals:	113.85 ha				

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Total Pasture Production Loss: 197350.5 kg DM per year / $45,390.61 Dollars per year

Adjust Monthly Data

Month	Daily Pasture Growth	Monthly Pasture Growth	Monthly Pasture Use	Percent Pasture Browsed				Pasture Loss from Browsing (kg DM per ha)				Value of Wildlife Browsing
	kg DM per ha	kg DM per ha	kg DM per ha	0 - 50 m	50 - 100 m	100 - 300 m	>300 m	0 - 50 m	50 - 100 m	100 - 300 m	>300 m	
Jan	20.5	507.9	304.7	67.00	67.00	34.00	5.00	204.2	204.2	103.6	15.2	$2,962.11
Feb	8.1	180.5	108.3					72.6	72.6	36.8	5.4	$1,052.94
Mar	4.8	118.8	71.3					47.8	47.8	24.2	3.6	$692.80
Apr	2.7	65.5	39.3					26.3	26.3	13.4	2.0	$382.11
May	4.1	100.7	60.4					40.5	40.5	20.5	3.0	$587.21
Jun	2.4	58.3	35.0					23.4	23.4	11.9	1.7	$340.12
Jul	6.1	150.5	90.3					60.5	60.5	30.7	4.5	$877.93
Aug	24.9	616.8	370.1					247.9	247.9	125.8	18.5	$3,597.05
Sep	54.9	1317.8	790.7					529.8	529.8	268.8	39.5	$7,685.68
Oct	80.8	2002.8	1201.7					805.1	805.1	408.6	60.1	$11,680.66
Nov	71.4	1712.6	1027.6					688.5	688.5	349.4	51.4	$9,988.16
Dec	38.3	950.6	570.4					382.1	382.1	193.9	28.5	$5,543.83

BITE is a powerful computer software program that can help you estimate pasture loss.

BITE screen images: (Starting from top left in a clockwise direction) Selecting the catchment where your property is located is the first step to finding your property using the map function; A view of the predicted level of browsing for a parcel of land. (The differing colours represent browsing zone classifications based on distances from the bush edge, red = 0-50m, orange 50-100m, yellow 100-300m and green =>300m); A summary of estimated pasture production and potential pasture loss due to wildlife for each zone highlighted on the parcel of land. (The baseline data and assumptions used in the analysis can be easily modified to reflect known pasture growth and potential pasture loss figures for a property).