# Aerial control of deer, what works & what to consider?

G Eccles1, S Parker1, D Shawcross2 1 NSW National Parks and Wildlife Service, Sydney, NSW 2 NSW National Parks and Wildlife Service, Tumut, NSW





In NSW, aerial shooting operations on NSW Government tenure is undertaken by accredited NSW NPWS and Local Land Service employees who are members of the Feral Animal Aerial Shooting Team (FAAST).

FAAST also undertakes aerial control programs on private tenure.





#### FAAST

The two most important priorities for FAAST are :

- Human Safety
- Animal welfare





## FAAST-how to ensure a high level of human safety and animal welfare outcomes?

- Good equipment
- Good training and reaccreditation
- Maintenance of training and accreditation
- Good procedures
- Good planning
- Continual improvement



#### FAAST animal welfare-other considerations

- The target area is always the heart lung area
- All animals shot must be confirmed dead before moving to the next target
- When shooting large mobs of animals "fly back procedures" must be employed





#### **Continual improvement - Firearms**

**FN SCAR-H new platform** 

Phase out in 2019-L1A1



#### **Standard Ammunition**



- Fallow deer 130 HP and 135 HP
- Sambar deermost individuals 130/150 PP very large individuals 180 PP
- Red deer 130 PP



#### History of aerial shooting deer

- Prior to 1990 deer rarely seen from the air
- Deer only controlled opportunistically while targeting other species





## Deer numbers controlled from the air over the last 12 years





#### What's changed in the data?

- Records of species controlled from the air started in 2007
- Deer specific programs approved from June 2015
- In the past, deer controlled have all been lumped together giving a single total for deer controlled
- From 2016 on, we now record deer species shot



#### Common deer species controlled from the air

- Fallow Deer
- Sambar Deer
- Red Deer
- Other species have been controlled but in much lower numbers such as chital deer and wapiti/elk



#### Deer controlled from the air across NSW by NPWS





### Fallow deer

- Occur in large mobs and small groups
- More concentrated in certain areas, and not evenly spread throughout the landscape.
- Very mobile, can run erratically
- Can be directed/turned easily from the air
- Most numerous of the deer species in NSW



### Red deer

- Occur throughout NSW
- Though in much smaller numbers than some of the other species
- Usually in small groups or solitary animals
- Relatively easily to remove populations from the landscape







### Sambar

- Generally runs where it wants to, difficult to turn
- However, runs slowly and predictably
- Usually solitary or in small groups







## What else do you need consider?

#### Planning is the most important aspect!

- Endorsed shooting operation plans
- JSAs
- JSBs
- Spot risk assessments
- OIC responsibilities
- Notifications
- NOTAMs
- CASA Approvals
- Flight following
- Fuel, Ammo



## Additional considerations

#### Topography

- An important consideration for planning
- Deer can be controlled in in many types of vegetation
- This includes open areas to tall forests





#### Additional considerations

- Objectives
  - What are you trying to achieve?
- Follow up
  - How will the program be maintained?





### What else do you need consider?

- Aircraft type
  - Is the aircraft fit for purpose?
- NPWS Helicopters
  - B3e's





#### Alpine Peatlands and Fens SOS project

- Target species deer and pigs-integrated with other programs
- Very large area with low densities, difficult access





- Alpine Peatlands and Fens SOS project
- Results so far:
  - 185 Sambar deer
  - 175 Fallow deer
  - 173 Pigs







#### Byadbo creek / Lower snowy - SOS project

Objective is to minimise impacts on native vegetation communities, including browsing by sambar and fallow deer on the population of threatened plant species Pale Pomaderris.





- Byadbo creek / Lower snowy - SOS project
- Large area with low densities, difficult steep access
- Results so far:
  - 528 Fallow deer
  - 176 Sambar deer
  - 77 pigs
  - 38 goats





### In Conclusion

- Aerial shooting targeting deer can be very effective and efficient in controlling large numbers of deer quickly over a defined area
- Aerial shooting targeting deer can also be very effective in controlling deer when they occur in low densities over large areas.

