

Asian hornet year planner



		Jan / Feb	Mar	Apr	May	June
POPULATION	COLONY PHASE	Mated queens hibernating High mortality	Mated queens emerging High mortality	Foundress queens nest-building	Population growth: Workers	
	NEST TYPE	No new nests		Embryo	Primary	
	RISK TO HONEY BEES	None				Low
	IMPACTS ON HONEY BEES			None		
	DEFENCES* according to threat	Vigilance: Look for last year's nests in trees	Prevention: Use frequently monitored selective spring queen trapping; release bycatch. Queens are flying at >12°C April to May: look for embryo/primary nests			
	BAIT	None	Carbohydrates			
	MANAGEMENT* according to threat	Plan and prepare Take some training Acquire or build your defence kit	Assess colonies, swarm prevention, monitor <i>Varroa</i>		Swarm control, unite/requeen colonies	Swarm control, build up colonies
	FLOWERS VISITED	Spring camelia		Tree sap,		

*Defence and management actions should be appropriate to the local level of threat or predation. Monitoring is a priority in low-risk areas.

Nests

Locations and sizes include:

Hibernating queens – In sheltered spots, rotten wood, woodpiles, under bark, most within 200m of secondary nests.

Embryo nests – In sheds, sheltered buildings; entrance: bottom; size: tennis ball.

Primary nests – In sheds, sheltered buildings, brambles; entrance: bottom; size: up to small football.

Secondary nests – High in trees, brambles, hedges, roof spaces, walls; size: variable ~20 to >60cm. Features: oval, light tan; entrance on sides.



Left to right: embryo nest, primary nest, John de Carteret; secondary nest courtesy The Animal and Plant Health Agency, Crown copyright.

Defences

(according to threat)

These include having strong colonies; selective spring queen/autumn trapping to reduce nest numbers, especially in areas near the previous year's nests; learn to track; NBU nest destruction; electric harps; muzzles; bee hive stand skirts; long grass; badminton racket; commercial selective traps; closing open mesh floors, entrance reducers.



Complete Asian hornet trap kit provided by Thorne with permission from Gard'Apis



Harp in use. Anne Rowberry



An Asian hornet trap made by Jabeprode.

Management

(according to threat)

Moving colonies when heavily predated may be an option. If feeding colonies, feed at dusk when hornets are not flying. Reduce the level of colony odour in the surroundings by closing open mesh floors/reducing inspections. NB: multiple colonies together may 'spread' predation among colonies.

This planner is a greatly simplified overview. Wide variations exist by location, weather, nest proximity and density, and by year. The planner has been collated by Ian Campbell. Thanks to contributors.

July	Aug	Sept	Oct	Nov	Dec
September: Sexualls - males and queens produced			Sexualls leave nests	Males + workers die Queens hibernate	Queens hiberanate High mortality
Primary/Secondary transition	Secondary			Normally abandoned	
Moderate	Severe		Severe/Moderate	Very Low	None
Hawking losses (increased predation), stress, foraging paralysis, low stores, weakened colonies					None
Control: Use monitored bait stations, report sightings, track, NBU nest destruction Deploy apiary defences where predation exists July to October: Close open mesh floors. October to mid November: Autumn monitored selective queen trapping				Vigilance: Look for old nests	
Carbohydrates or protein			Carbohydrates		None
Strong healthy bee colonies, Minimise stress, <i>Varroa</i> management July to September: If there is hornet predation, minimise hive inspections and feed as required				Review the past season	<i>Varroa</i> management
flowers for shorter tongues		Tree sap, ivy	Tree sap, ivy, camelia	Tree sap, ivy, mahonia	Mahonia

Monitoring and Bait

Monitoring stations: Can be a lidded jar or wick-type bait station; pot or jar with a mini-wick pot inside and bycatch escape holes; tray with absorbent cloth (weighted down); commercial selective trap. All traps require an attractant.

NB: Open trays collect rain water, attractant evaporates and they can become ineffective.

Attractants: Hornet queens and workers feed reliably all seasons on **carbohydrate** sweet baits. Attractants should lure hornets but repel bees; alcohol/ fermentation does this, such as in combinations of sugar/dark beer/wine/red fruit syrup, sweetened apple juice, sugar syrup/jam/yeast, Trappit (commercial product) and decaying fruit. *NB: Using honey is not recommended because of the risk of foulbrood.*

Hornet workers feed larvae with **protein** eg, fish, shellfish, cat food, meat (rotting protein can attract vermin, requires regular replacement). **Pheromones:** Asian hornet pheromones; trapped hornets attract other hornets.

Bycatch: Non-selective kill traps are strongly discouraged because of the high degree of bycatch which impacts biodiversity.



A wick-type bait station. Helen Tworowski

Key Actions:

- Carry out monitoring;
- Join an Asian Hornet Team;
- Help raise public awareness about identification and how to report;
- Always stay safe; Never approach nests



Resources

- National Bee unit.** See <https://tinyurl.com/bdfcwmve>
- NBU Asian hornet monitoring.** See <https://tinyurl.com/ywv2a8mx>
- BBKA.** See <https://tinyurl.com/4dsme2x>
- Non-native Species Secretariat.** See <https://tinyurl.com/4wvxpvv8>
- BBKA News.** December 2023, Asian hornet resource list, page 403.
- Asian Hornet Watch app** – download from Apple store/Google play