

Black Mountain Symposium 2018 Background Paper No. 15

Quick guide to biophysical research on Black Mountain: an overview of literature

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Abstract. Considerable research has been carried out in the Black Mountain Nature Reserve area, and resulted in at least 93 published papers, 26 tertiary level theses and 14 unpublished reports. Over half the papers are related to bird and other fauna research, 31% to plants or vegetation, 11% to physical aspects of the area and 6% to fire research. A brief summary of each paper is provided to help introduce the research to those with an interest in Black Mountain. The summary includes the topic covered, the focus of the research, species studied and whether the research was carried out solely on Black Mountain or as part of a wider study.

1. Introduction

A substantial number of published and unpublished research papers exist for the Black Mountain area (excluding the Australian National Botanic Gardens), around 50% of which are discussed in other Black Mountain Symposium background papers (Doherty 2018a, 2018b; Evans 2018; Fennell 2018; Finlayson 2018; Mulvaney 2018; Osborne and Hoefler 2018; Purdie 2018a; Tongway 2018). In order to make all the research more accessible, this paper provides an overview of the known research papers relating to Black Mountain's physical environment and biodiversity/ecology; papers associated with taxonomy are excluded (see Appendix 1 explanatory notes). Other research that has not yet resulted in reports or publications being prepared is outlined in Purdie (2018b).

2. Types of research carried out

An extensive search for scientific papers located 93 formal publications, including articles published in either refereed or other journals, 26 tertiary theses (or similar) and 14 unpublished reports. An overview of each paper (topic covered, research focus, species studied and location) is provided in Appendix 1. Most of the references are based on field research, around 30% from studies carried out solely on Black Mountain and the remainder as part of research involving one or more other locations in the ACT or beyond. Over half the Black Mountain research references are related to fauna, 31% to plants or vegetation, 11% to physical aspects of Black Mountain's environment and 6% to fire research (Table 1). Of the 69 faunal references, 52 relate to bird-, nine to invertebrate- and eight to mammal-research.

2.1 Physical environment research

Most of physical sciences references relate to the mapping and description of geological formations (Öpik 1958; Strusz and Henderson 1971; Henderson 1980, 1981, 1985; Abell 1991) or the classification of landforms (Grant 1976) or soil associations (Walker 1978; Sleeman and Walker 1979) in the Canberra region. Other material covers the age of fanglomerate deposits on the lower southern and eastern slopes of Black Mountain (Costin and Polach 1973), the description of soil profiles on the eastern slopes (Sleeman and Watson 1979), variation in soil properties below *Eucalyptus* trees (Johnson 1969) or research into specific soil properties (Wallbrink and Murray 1996; Wallbrink and Olley 1999).

2.2 Fauna research

Bird research on Black Mountain has generally focussed on the biology or behaviour of particular species or types of birds (Table 2), often as part of studies that have included research sites in other areas of Canberra or the ACT region (see Appendix 1). They include 18 papers on the White-winged

Chough, seven papers on the Southern Boobook and six papers on raptors including the Little Eagle and Wedge-tailed Eagle (Table 2).

Table 1. Summary of broad research topics and number of references

Topic	No.	% of total
Physical environment	14	11
Geology	7	5
Soils	6	5
Landform	1	1
Fauna	69	52
Birds	52	39
Invertebrates	9	7
Mammals	8	6
Flora	41	31
Non-vascular plants	8	6
Vascular plants	24	18
Vegetation	9	7
Fire	8	6
Total	132	100

Table 2. Bird species researched on Black Mountain

Species	References
Brown Thornbill (<i>Acanthiza pusilla</i>)	Green and Cockburn 1999; Green 2001.
Crimson Rosella (<i>Platycercus elegans</i>)	Krebs 1998, 1999; Krebs and Magrath 2000; Krebs et al. 1999, 2002.
Insectivorous species	Bell 1980a.
Laughing Kookaburra (<i>Dacelo novaeguineae</i>)	Legge 1999.
Little Eagle (<i>Hieraaetus morphnoides</i>)	Olsen and Fuentes 2005; Olsen et al. 2013a, 2015.
Raptors	Olsen 1992; Olsen et al. 2006.
Southern Boobook (<i>Ninox novaeseelandiae</i>)	Olsen et al. 2002, 2008, 2010, 2011, 2013c; Olsen and Trost 2007; Trost et al. 2008.
Tawny Frogmouth (<i>Podargus strigoides</i>)	Rae and Rae 2013.
Wedge-tailed Eagle (<i>Aquila audax</i>); Little Eagle (<i>Hieraaetus morphnoides</i>)	Olsen et al. 2013b.
White-throated Treecreeper (<i>Cormobates leucophaeus</i>)	Weekes 1999; Lindenmayer et al. 2007.
White-winged Chough (<i>Corcorax melanorhamphos</i>)	Cullen et al. 1996; Boland 1998; Boland et al. 1997a, 1997b; Heinsohn 1988, 1990, 1991a, 1991b, 1991c, 1992a, 1992b, 1995, 2009; Heinsohn and Cockburn 1994; Heinsohn et al. 1988, 2000; Beck and Heinsohn 2006; Beck et al. 2008.

Most of the other bird papers are related to Black Mountain's general avifauna and include seasonal differences in mixed species flocks (Hermes 1981), habitat and/or diversity studies (Bell 1980b; Clark 1980; Stein 1982; Canberra Ornithologists Group 1986; Yu 1988; Sobey 2006), surveys (Marchant 1973) or census methods (Hermes 1977).

Invertebrate research on Black Mountain has included the biology and behaviour of Scribbly Gum Moth larvae (Cooke and Edwards 2007; Horak et al. 2012), the biology of a scorpion (Smith 1966) and a dragonfly (McInnes 2001), host associations of leaf-mining flies (Lambkin et al. 2008), the impact of disturbance on ant diversity (Wynberg 1993), the contents of an ant pygidial gland (Jackson and Morgan 1990) and butterfly surveys (Ferguson 1977; Kitchin et al. 1978).

Mammal studies on Black Mountain have included the surveys of Tidemann (1980), Kukolic (1990), Treadwell (2009) and Pennay (2013), and ecological studies of small mammals (Buckmaster 2005; Buckmaster et al. 2010), foxes (Martin 1995) and Brown Antechinus (Dickman 1980).

2.3 Flora research

Black Mountain flora references include 25 related to vascular plants, eight to non-vascular plants and eight to vegetation. Most of the research was part of studies involving sites on Black Mountain and in Canberra or the wider region (see Appendix 1).

The majority of the vascular plant papers involve research on particular species or groups of plants (Table 3) and include six focussing on orchids (one on symbiotic fungi and orchid diversity (Roche et al. 2010), two on orchid phenology (Boleyn 1991; Bullen 2002) and three on insect pollinators (De Jager and Peakall 2015; Schiestl and Peakall 2005; Hayashi 2016)). Three other papers were related to plant–insect interactions: two on seed dispersal by ants (Berg 1975; Gray 1979) and one on the effect of ant presence on pollination and seed predation of Sticky Everlasting (O'Dowd and Catchpole 1983). Several studies were related to aspects of species' breeding systems, including for Cherry Ballart (Murray 2003), Early Nancy (Barrett et al. 1999), Fan Grevillea (Gleeson 1993/94; Purdie 2017) and Grass Triggerplant (Willis 1988; Willis and Ash 1990) the latter species involving glasshouse studies using plants collected from Black Mountain. Research on species of *Eucalyptus* ranged from growth rates in plantations located on the foot-slopes of Black Mountain (Cremer 1969; Jacobs 1950)¹, to insect herbivory (Fox and Morrow 1983) and the functional significance of leaf angle (King 1997). The remaining papers focussed on flora composition (Gray and McKee 1969), rare plants (Mulvaney 2014; Purdie 2016) and the spread of landscaping species (Purdie 2014).

Seven of the eight references on nonvascular plants related to fungi. Six covered the ecology, impacts and other aspects of *Phytophthora* spp. (Pratt and Wrigley 1970; Pratt 1973; Pratt and Heather 1973a, 1973b; Taylor 1974; Halsall 1976), one was about infection distribution patterns of a smut fungus (Garcia-Guzman et al. 1996) and the last described a new naphthopyrone chemical extracted from a lichen collected from Black Mountain (Elix and Wardlaw 2004).

More general studies of plants as part of Black Mountain's vegetation included the effects of slope aspect on species composition (Pook and Moore 1966), water stress (Pook et al. 1966), vegetation characteristics including trees sizes and shrub abundance (Coyne 1969), plant seed banks (Pavlovic 1982), relationships between plant abundance and distribution (Falster et al. 2001; Murray and Lepschi 2004), methods of estimating above-ground biomass (Chalise 2013), floristic and invertebrate composition, patterns and dynamics in grasslands (Sharp 1997) and assessing the condition of the vegetation as part of a landscape functional analysis (Sharp 2011).

¹ These study sites were probably located outside the current Black Mountain Nature Reserve area. Coppice plots shown in Figure 19 of Coyne (1969) are probably those described in Jacobs (1950); no record has been found showing the location of the single plantation referred to by Cremer (1969) "at the foot of Black Mountain".

Table 3. Plant species researched on/from Black Mountain

Species	References
Cherry Ballart (<i>Exocarpos cupressiformis</i>)	Murray 2003.
Early Nancy (<i>Wurmbea dioica</i>)	Barrett et al. 1999.
<i>Eucalyptus</i> spp.	Cremer 1969; Jacobs 1950; Fox and Morrow 1983; King 1997; Roden and Ball 1996; Osler 1991.
Fan Grevillea (<i>Grevillea ramosissima</i>)	Gleeson 1993/94; Purdie 2017.
Sticky Everlasting (<i>Helichrysum viscosum</i> ; now called <i>Xerochrysum viscosum</i>)	O'Dowd and Catchpole 1983.
Orchids	Boleyn 1991; Bullen 2002; De Jager and Peakall 2015; Schiestl and Peakall 2005; Roche et al. 2010; Hayashi 2016.
Grass Triggerplant (<i>Stylidium graminifolium</i>)	Willis 1988; Willis and Ash 1990.

2.4 Fire research

The Forest Research Institute in Canberra carried out extensive fire studies on Black Mountain during the 1960s and early 1970s. Over 1000 fires had been lit there up to early 1967, each ranging from a tenth to a quarter of an acre (0.04-0.1 ha) and usually allowed to burn for about half an hour (Anon 1967). Some 210 experimental burns between 1964 and 1970 examined the impact of fire on the structure and composition of the dry sclerophyll vegetation (Davis et al. 1977). The research also examined fire behaviour in dry sclerophyll forest, included the links between fuel loads and area and perimeter spread rates (McArthur 1967) and between fire intensity and flame heights with different *Eucalyptus* bark types in relation to spotting (Luke and McArthur 1978). Most or all of the field sites were probably located in what is now known as Bruce Ridge (see Doherty 2018b). Studies in the Black Mountain Nature Reserve area include fuel loads and characteristics (Ashcroft 1967), the effect of fire on fungi with underground fruiting bodies (i.e. hypogeous fungi; Trappe et al. 2006), monitoring the impacts of fire in the urban–bushland interface (Doherty and Meyers 2009), examining the short-term impacts of fire on bird species diversity (Treloar 2014) and the interactions between orchid diversity and fire history (Seddon in preparation).

7. References

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Black Mountain biophysical research references

The following list includes scientific articles published in refereed scientific journals and other non-refereed journals, theses (or similar) and unpublished reports that relate to research carried out at least in part on Black Mountain. It does not include 'popular' articles in magazines or books. It excludes research carried out solely in the cultivated parts of the Australian National Botanic Gardens and scientific references where Black Mountain is cited as the type locality for newly described species (see also Pullen 2018; Purdie 2018b), as the location of species examined during taxonomic revisions or as the location of a record where a species has been observed.

Full bibliographic details of each line entry in the table below are provided in the reference list. The entries below include the following information (as relevant):

Topic: the broad type of subject matter in the paper.

Focus: the main focus of the research.

Organism: the species or general groups of organisms studied.

No. sites: the number of sites/locations where the research was carried out. a) Black Mountain the sole study site; b) Black Mountain one of 2 or 3 sites; c) Black Mountain one of >3 sites.

Institution: the main institution through which the research was carried out; ABS = Australasian Bat Society; ANU = Australian National University; BMR = Bureau of Mineral Resources; CCAE = Canberra College of Advanced Education; CIT = Canberra Institute of Technology; COG = Canberra Ornithologists Group; CSIRO = Commonwealth Scientific and Industrial Research Organisation; ESDD = ACT Government Environment and Sustainable Development Directorate; FRI = Forest Research Institute (Canberra); FTB = Forestry and Timber Bureau (Canberra); OAU = Other Australian University; OOU = Other Overseas University; PCS = ACT Government Parks and Conservation Service; Private = private consultant or no formal institutional affiliation; UC = University of Canberra.

Paper type: Thesis; Published; Unpublished

Reference author/s	Topic	Focus	Organism	No. sites	Institution	Paper type
Abell (1991)	Geology	Map & description		c	BMR	Published
Ashcroft (1967)	Fire	Fuel loads & characteristics		b	ANU	Thesis
Barrett et al. (1999)	Plants, vascular	Breeding biology & behaviour	Early Nancy (<i>Wurmbea dioica</i>)	c	OOU/CSIRO	Published
Beck & Heinsohn (2006)	Birds	Breeding behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	c	ANU	Published
Beck et al. (2008)	Birds	Genetic structure	White-winged Chough (<i>Corcorax melanorhamphos</i>)	c	ANU	Published
Bell (1980a)	Birds	Flock composition and seasonality	insectivorous bird species	a	CCAEO/AU	Published
Bell (1980b)	Birds	Effect of clearing on bird		a	CCAEO/AU	Published

Reference author/s	Topic	Focus	Organism	No. sites	Institution	Paper type
		diversity				
Berg (1975)	Plants, vascular	Dispersal of seeds by ants		c	OOU/CSIRO	Published
Boland (1998)	Birds	Breeding behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Boleyn (1991)	Plants, vascular	Species catalogue; impact of wildfire on flowering and abundance	Orchids	a	ANU	Unpublished
Boland et al. (1997a)	Birds	Breeding behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Boland et al. (1997b)	Birds	Breeding behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Buckmaster (2005)	Mammals	Ecology	Small mammals	c	UC	Thesis
Buckmaster et al. (2010)	Mammals	Ecology	Small mammals	c	UC	Published
Bullen (2002)	Plants, vascular	Survey & phenology	Orchids	a	Private	Unpublished
Canberra Ornithologists Group (1986)	Birds	Habitat significance		b	COG	Unpublished
Chalise (2013)	Vegetation	Biomass estimation methods		a	ANU	Thesis
Clark (1980)	Birds	Diversity and habitat		a	Private?	Unpublished
Cooke & Edwards (2007)	Invertebrates	Behaviour of larvae	Scribbly Gum Moth (<i>Ogmograptis</i> sp.)	c	OAU/CSIRO	Published
Costin & Polach (1973)	Geology/soil	Age of slope deposits		a	CSIRO	Published
Coyne (1969)	Vegetation	Description and management		a	ANU	Thesis
Cremer (1969)	Plants, vascular	Plantation growth	Eucalypts	b ¹	FRI	Published
Cullen et al. (1996)	Birds	Feeding behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	c	ANU	Published
Davis et al. (1977)	Fire	Plant ecology		b	CSIRO/FTB	Unpublished
De Jager & Peakall (2015)	Plants, vascular	Pollination	Orchids: <i>Chiloglottis</i> spp.	c	ANU	Published
Dickman (1980)	Mammals	Ecology	<i>Antechinus</i> spp.	c	ANU	Published
Doherty & Meyers (2009)	Fire	Vegetation monitoring		b	CSIRO	Unpublished
Elix & Wardlaw (2004)	Plants, non-vascular: lichens	Chemical extract	Lichen <i>Hypotrachyna immaculata</i>	a	ANU	Published
Falster et al. (2001)	Vegetation	Plant abundance and distribution		b?	CSIRO	Published
Ferguson (1977)	Invertebrates	Census	Butterflies	c	Private/CSIRO	Published

Reference author/s	Topic	Focus	Organism	No. sites	Institution	Paper type
Fox & Morrow (1983)	Plants, vascular	Insect herbivory	Eucalypts	c	ANU	Published
Garcia-Guzman et al. (1996)	Plants, non-vasculars: fungi	Infection distribution patterns on plants	Smut fungus <i>Sporisorium amphiphis</i>	c	ANU	Published
Gleeson (1993/94)	Plants, vascular	Genetic variation	Fan Grevillea (<i>Grevillea ramosissima</i>)	c	ANU	Thesis
Grant (1976)	Landforms	Terrain classification		c	CSIRO	Published
Gray (1979)	Plants, vascular	Dispersal of seeds by ants		b	ANU	Thesis
Gray & McKee (1969)	Plants, vascular	Species census		c	CSIRO	Published
Green (2001)	Birds	Biology	Brown Thornbill (<i>Acanthiza pusilla</i>)	b	ANU	Published
Green & Cockburn (1999)	Birds	Biology	Brown Thornbill (<i>Acanthiza pusilla</i>)	b	ANU	Published
Halsall (1976)	Plants, non-vascular: fungi	Antigens	Dieback: <i>Phytophthora</i>	c?	?	Published
Hayashi (2016)	Plants, vascular	Pollination	Orchids: <i>Caladenia</i>	c	ANU	Thesis
Heinsohn (1988)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Heinsohn (1990)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Thesis
Heinsohn (1991a)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Heinsohn (1991b)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	a	ANU	Published
Heinsohn (1991c)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Heinsohn (1992a)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Heinsohn (1992b)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b	ANU	Published
Heinsohn (1995)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	b?	ANU	Published
Heinsohn (2009)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	c	ANU	Published
Heinsohn and Cockburn (1994)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	a	ANU	Published
Heinsohn et al. (1988)	Birds	Behaviour	White-winged Chough (<i>Corcorax melanorhamphos</i>)	a	ANU	Published
Heinsohn et al. (2000)	Birds	Behaviour	White-winged Chough (<i>Corcorax</i>	c	ANU	Published

Reference author/s	Topic	Focus	Organism	No. sites	Institution	Paper type
			<i>melanorhamphos</i>)			
Henderson (1980)	Geology	Mapping		c	BMR	Published
Henderson (1981)	Geology	Description		c	BMR	Published
Henderson (1985)	Geology	Mapping		c	BMR	Published
Hermes (1977)	Birds	Census methods		a	ANU	Thesis
Hermes (1981)	Birds	Behaviour		a	ANU	Published
Horak et al. (2012)	Invertebrates	Biology	Scribbly Gum Moth (<i>Ogmograptis</i>)	c	CSIRO	Published
Jackson & Morgan (1990)	Invertebrates	Contents of pygidial gland	Ant <i>Myrmecia nigriceps</i>	a	OOU	Published
Jacobs (1950)	Plants, vascular	Plantation growth	Eucalypts	b ¹	FTB	Published
Johnson (1969)	Soil	Spatial variation in properties re <i>Eucalyptus</i> trees		b	ANU	Thesis
King (1997)	Plants, vascular	Leaf angle function	Eucalypts	c	ANU	Published
Kitchin et al. (1978)	Invertebrates	Survey / Census	Butterflies	c	OAU/CSIRO	Published
Krebs (1998)	Birds	Biology	Crimson Rosella (<i>Platycercus elegans</i>)	a	ANU	Published
Krebs (1999)	Birds	Biology	Crimson Rosella (<i>Platycercus elegans</i>)	a	ANU	Thesis
Krebs and Magrath (2000)	Birds	Biology	Crimson Rosella (<i>Platycercus elegans</i>)	a	ANU	Published
Krebs et al. (1999)	Birds	Biology	Crimson Rosella (<i>Platycercus elegans</i>)	a	ANU	Published
Krebs et al. (2002)	Birds	Biology	Crimson Rosella (<i>Platycercus elegans</i>)	a	ANU	Published
Kukolic (1990)	Mammals	Survey		b	PCS	Published
Lambkin et al. (2008)	Invertebrates	Host–parasite associations	Leaf-mining flies	c	CSIRO?	Published
Legge (1999)	Birds	Biology	Laughing Kookaburra (<i>Dacelo novaeguineae</i>)	c	ANU	Thesis
Lindenmayer et al. (2007)	Birds	Ecology	White-throated Treecreeper (<i>Cormobates leucophaeus</i>)	a	ANU	Published
Luke and McArthur (1978)	Fire	Fire behaviour		? ¹	FTB	Published
Marchant (1973)	Birds	Survey		c	Private?	Published
Martin (1995)	Mammals	Ecology	Fox (<i>Vulpes vulpes</i>)	c	UC	Thesis
McArthur (1967)	Fire	Fire behaviour		? ¹	FTB	Published
McInnes (2001)	Invertebrates	Breeding	Dragonfly (<i>Orthetrumcale donicum</i>)	b	ANU	Thesis
Mulvaney (2014)	Plants, vascular	Rarity status		c	ESDD	Unpublished
Murray (2003)	Plants, vascular	Reproductive characteristics	Cherry Ballart (<i>Exocarpos cupressiformis</i>)	a	CSIRO	Published
Murray & Lepschi	Plants, vascular	Plant abundance and		c	CSIRO	Published

Reference author/s	Topic	Focus	Organism	No. sites	Institution	Paper type
(2004)		distribution				
O'Dowd & Catchpole (1983)	Plants, vascular	Plant–ant interaction	Sticky Everlasting (<i>Helichrysum viscosum</i> [now <i>Xerochrysum viscosum</i>])	a	CSIRO	Published
Olsen (1992)	Birds	Survey	Raptors	c	UC	Unpublished
Olsen & Fuentes (2005)	Birds	Survey	Little Eagle (<i>Hieraaetus morphnoides</i>)	c	UC	Published
Olsen & Trost (2007)	Birds	Behaviour	Southern Boobook (<i>Ninox novaeseelandiae</i>)	b	UC	Published
Olsen et al. (2002)	Birds	Behaviour	Southern Boobook (<i>Ninox novaeseelandiae</i>)	b	UC	Published
Olsen et al. (2006)	Birds	Behaviour	Raptors	c	UC	Published
Olsen et al. (2008)	Birds	Behaviour	Southern Boobook (<i>Ninox novaeseelandiae</i>)	a	UC	Published
Olsen et al. (2010)	Birds	Behaviour	Southern Boobook (<i>Ninox novaeseelandiae</i>)	b	UC	Published
Olsen et al. (2011)	Birds	Behaviour	Southern Boobook (<i>Ninox novaeseelandiae</i>)	c	UC	Published
Olsen et al. (2013a)	Birds	Ecology	Little Eagle (<i>Hieraaetus morphnoides</i>)	c	UC	Published
Olsen et al. (2013b)	Birds	Behaviour	Wedge-tailed Eagle (<i>Aquila audax</i>); Little Eagle (<i>Hieraaetus morphnoides</i>)	c	UC	Published
Olsen et al. (2013c)	Birds	Behaviour	Southern Boobook (<i>Ninox novaeseelandiae</i>)	c	UC	Published
Olsen et al. (2015)	Birds	Breeding	Little Eagle (<i>Hieraaetus morphnoides</i>)	c	UC	Published
Opik (1958)	Geology			c	BMR	Published
Osler (1991)	Plants, vascular	Distribution re revegetation	Yellow Box (<i>Eucalyptus melliodora</i>); Blakelyi's Red Gum (<i>E. blakelyi</i>)	c	ANU	Thesis
Pavlovic (1982)	Vegetation	Plant seed banks		a	ANU	Thesis
Pennay (2013)	Mammals	Bat survey		a	ABS	Unpublished
Pook & Moore (1966)	Vegetation	Aspect–composition interaction		a	CSIRO	Published
Pook et al. (1966)	Vegetation	Water stress	<i>Eucalyptus</i> spp.	a	CSIRO	Published
Pratt (1973)	Plants, non-vascular: fungi	Dieback impacts	<i>Phytophthora</i>	a	ANU	Published
Pratt & Heather (1973a)	Plants, non-vascular: fungi	Dieback species	<i>Phytophthora cinnamomi</i> and <i>P. drechsleri</i>	c	ANU	Published
Pratt & Heather (1973b)	Plants, non-vascular: fungi	Dieback impacts	<i>Phytophthora cinnamomi</i>	c	ANU	Published
Pratt & Wrigley (1970)	Plants, non-vascular: fungi	Dieback host plants	<i>Phytophthora</i>	a	ANU	Published
Purdie (2014)	Plants, vascular	Spread of road landscape species		a	Private	Unpublished
Purdie (2016)	Plants, vascular	Survey	Rare species	a	Private	Unpublished
Purdie (2017)	Plants, vascular	Population structure	<i>Grevillea ramosissima</i>	a	Private	Unpublished

Reference author/s	Topic	Focus	Organism	No. sites	Institution	Paper type
Rae & Rae (2013)	Birds	Behaviour	Tawny Frogmouth (<i>Podargus strigoides</i>)	c	ANU	Published
Roche et al. (2010)	Plants, vascular	Symbiotic fungi and orchid diversity	Orchids: <i>Chiloglottis</i> spp.	c	ANU	Published
Roden & Ball (1996)	Plants, vascular	Physiology	Red Stringybark (<i>Eucalyptus macrorhyncha</i>); Scribbly Gum (<i>E. rossii</i>)	a	ANU	Published
Schiestl & Peakall (2005)	Plants, vascular	Pollination	Orchids: <i>Chiloglottis</i> spp.	c	OOU/ANU	Published
Seddon (in preparation)	Fire-plant interaction	Orchid diversity / fire history		c	ESDD	Unpublished
Sharp (1997)	Vegetation: ecological patterns and dynamics	Floristic and invertebrate composition		c	UC	Thesis
Sharp (2011)	Landscape function	Vegetation		c	Private	Published
Sleeman & Walker (1979)	Soil	Description		c	CSIRO	Published
Sleeman & Watson (1979)	Soil	Description		a	CSIRO	Unpublished
Smith (1966)	Invertebrates	Biology	Scorpion (<i>Urodacus abruptus</i>)	a	ANU	Published
Sobey (2006)	Birds	Bird habitat and species richness		c	ANU	Thesis
Stein (1982)	Birds	Distribution / habitat characteristics		c	ANU	Thesis
Strusz & Henderson (1971)	Geology	Map and description		c	BMR	Published
Taylor (1974)	Plants, non-vascular: fungi	Dieback ecology	<i>Phytophthora cinnamomi</i>	a	ANU	Thesis
Tidemann (1980)	Mammals	Survey		a	ANU	Published
Trappe et al. (2006)	Fire-fungi interaction	Surveys in burnt and unburnt areas	Hypogeous fungi	b	OOU/CSIRO	Published
Treadwell (2009)	Mammals	Surveys	Bats	c	OAU	Thesis
Treloar (2014)	Fire-bird interaction	Short-term impacts of fire on bird diversity		a	CIT	Thesis
Trost et al. (2008)	Birds	Biology	Southern Boobook (<i>Ninox novaeseelandiae</i>)	b	Private/UC	Published
Walker (1978)	Soil	Description of associations		c	CSIRO	Published

Reference author/s	Topic	Focus	Organism	No. sites	Institution	Paper type
Wallbrink & Murray (1996)	Soil	Properties re soil redistribution		b	CSIRO	Published
Wallbrink & Olley (1999)	Soil	Suspended sediment		a	CSIRO	Published
Weekes (1999)	Birds	Behaviour	White-throated Treecreeper (<i>Cormobates leucophaeus</i>)	a	ANU	Thesis
Willis (1988)	Plants, vascular	Biosystematics	Triggerplant (<i>Stylidium graminifolium</i>)	c	ANU	Thesis
Willis & Ash (1990)	Plants, vascular	Breeding systems	Triggerplant (<i>Stylidium graminifolium</i>)	c	ANU	Published
Wynberg (1993)	Invertebrates	Impact of disturbance on diversity	Ants	c	ANU	Thesis
Yu (1988)	Birds	Behaviour / habitat		b	ANU	Thesis

¹ Research sites probably outside current Black Mountain Nature Reserve area.