# Using Boolean Operators in Google Scholar

## 1.AND

**Purpose:** All keywords must be present.

**Example:**

```
climate change AND biodiversity
```

**Meaning:**

Only papers that contain **both** *climate change* and *biodiversity* will appear.

**Tip:**

Use AND to narrow your search results by ensuring all keywords appear together. This helps you find more focused and relevant papers.

## 2.OR

**Purpose:** At least one keyword can be present.

**Example:**

```
fish OR amphibian
```

**Meaning:**

Papers containing *fish*, *amphibian*, or both will appear.

**Tip:**

Use OR to include synonyms or related terms. This broadens your search and helps you capture more relevant literature.

**Purpose:** Exclude a keyword.

**Example:**

```
jaguar NOT car
jaguar -car
```

**Meaning:**
Papers containing *jaguar* but excluding *car* will appear.

**Tip:**

Use NOT or the minus sign to remove unwanted or irrelevant results, especially when a term has multiple meanings.

**4. Quotation Marks ("")**

**Purpose:** Search for an exact phrase.

**Example:**

```
"feeding behavior of birds"
```

**Meaning:**
Only papers containing the **exact phrase** in the same order will appear.

**Tip:**

Use quotation marks to search for an exact phrase. This is especially useful for literature reviews and thesis-related searches.

## 5. Parentheses ( )

**Purpose:** Group multiple terms

**Example:**

```
(fish OR amphibian) AND respiration
```

**Meaning:**
Papers containing either *fish* or *amphibian* **and** *respiration* will appear.

**Tip:**

Use parentheses to organize complex searches. They ensure the correct logical order when combining multiple operators.

## 6. author:

**Purpose:** Search by a specific author.

**Example:**

```
author:"Smith J"
```

**Meaning:**
Only papers written by **Smith J** will appear.

**Tip:**

Use author search when you want to find papers by a specific *researcher, supervisor, or leading author* in a field.

**Purpose:** Search keywords in the title.

**Example:**

```
allintitle: bird migration climate
```

**Meaning:**
Only papers whose **titles contain all the keywords** will appear.

**Tip:**

Use title-based search to find highly relevant papers. Keywords in the title usually indicate the main focus of the study.

**8. filetype:**

**Purpose:** Filter by specific file type.

**Example:**

```
climate change filetype:pdf
```

**Meaning:**
Only **PDF documents** will appear.

**Tip:**

Use filetype to filter results by document format, such as PDFs. This is helpful when you want full-text articles or reports.

**Purpose:** Limit search to a specific website or domains.

**Example:**

```
pollution site:edu
```

**Meaning:**
Only papers from **.edu** domains will appear.

**Tip:**

Use site search to limit results to trusted academic or institutional domains such as universities or research organizations.

**Purpose:** Search within the full text of documents.

**Example:**

```
allinfile: biodiversity conservation Bangladesh
```

**Tip:**

Use allinfile to search for keywords within the entire document text. This is useful for long reports, policy documents, and datasets.

## 11. intitle:

**Purpose:** Control the scope of search.

**Examples:**

```
intitle:"bird feeding"
```

**Meaning:**
Papers whose **titles contain "feeding behavior"** and also mention *birds* somewhere in the paper will appear.

**Tip:**

Use intitle to control where Google Scholar searches for your keywords, allowing more precise and efficient results.

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*I hope this guide makes academic searching clearer, faster, and more meaningful for students and early-career researchers.*