

THE IMPORTANCE OF THE CAPES SCIENTIFIC DATABASE FOR THE BRAZILIAN AND WORLD RESEARCH

*A IMPORTÂNCIA DO BANCO DE DADOS CIENTÍFICOS DA CAPES PARA A
PESQUISA BRASILEIRA E MUNDIAL*

*LA IMPORTANCIA DE LA BASE DE DATOS CIENTÍFICA DE LA CAPES PARA
LA INVESTIGACIÓN BRASILEÑA Y MUNDIAL*

ALINE NUNES

Doutora em Biotecnologia e Biociências pela Universidade Federal de Santa Catarina (UFSC) – Florianópolis – SC.

alinenunes_bio@hotmail.com
<https://orcid.org/0000-0002-7758-2681>

GADIEL ZILTO AZEVEDO

Graduando em Agronomia pela Universidade Federal de Santa Catarina (UFSC) – Florianópolis – SC.

gad.azevedo@gmail.com
<https://orcid.org/0000-0002-1263-4604>

CAROLINE SCHMITZ

Doutora em Biotecnologia e Biociências pela Universidade Federal de Santa Catarina (UFSC) – Florianópolis – SC.

carolineschmitz-bio@hotmail.com
<https://orcid.org/0000-0002-9806-252X>

GIUSEPPINA PACE PEREIRA LIMA

Doutora em Ciências Biológicas pela Universidade Estadual Paulista Júlio de Mesquita Filho (Unesp). Professora Titular da Universidade Estadual Paulista Júlio de Mesquita Filho (Unesp) – Botucatu – SP.

pace.lima@unesp.br
<https://orcid.org/0000-0002-1792-2605>

MARCELO MARASCHIN

Doutor em Bioquímica pela Universidade Federal do Paraná (UFPR) e pela Universidade de Leiden (LEI). Professor Titular da Universidade Federal de Santa Catarina (UFSC) – Florianópolis – SC.

mtocsy@gmail.com
<https://orcid.org/0000-0002-4146-4835>

Abstract

The CAPES Periodicals Portal, created in the 2000s, has an agreement with 39,000 scientific journals, which allows it to be a broad and secure database for accessing scientific articles in the most diverse fields. The Portal provides access to 390 databases/collections, including national and international data, digital libraries and repositories, and journal collections. There are 13 scientific categories in the Portal, the most important being Multidisciplinary, followed by Engineering, Applied Social Sciences, and Exact and Earth Sciences. The CAPES Periodicals Portal allows one to apply different filters to perform searches, which facilitates finding suitable articles for systematic reviews, for example. Thus, this study aimed to determine the performance of the CAPES Periodicals Portal by measuring the number of retrieved scientific documents compared to other databases (e.g., PubMed, Redalyc, and SciELO). Five analyses were carried out using certain descriptors and a time interval of published articles. By doing so, a larger number of queries resulted from the CAPES Portal concerning the databases investigated, characterizing it as a powerful tool for the audience interested in searching and recovering high-quality scientific documents, especially when compared with databases abroad (i.e., PubMed). Additionally, for further expansion and optimizations of the CAPES Periodicals Portal, it must be more and more valued, both nationally and internationally. For that, greater dissemination of their contents and possibilities to the users, e.g., researchers, professors, and students, must be pursued, in addition to greater investments in research and development in the country.

Keywords: Technical-scientific content; Repository; Academic research; Systematic review; Narrative review.

Resumo

O Portal de Periódicos CAPES, criado na década de 2000, possui convênio com 39 mil periódicos científicos, o que lhe permite ser uma base de dados ampla e segura para acesso a artigos científicos nas mais diversas áreas. O Portal fornece acesso a 390 bases de dados/colecções, incluindo dados nacionais e internacionais, bibliotecas e repositórios digitais e coleções de periódicos. O Portal conta com 13 categorias científicas, sendo a mais importante Multidisciplinar, seguida de Engenharias, Ciências Sociais Aplicadas e Ciências Exatas e da Terra. O Portal de Periódicos CAPES permite aplicar diferentes filtros para realizar buscas, o que facilita encontrar artigos adequados para revisões sistemáticas, por exemplo. Assim, este estudo teve como objetivo determinar o desempenho do Portal de Periódicos CAPES medindo o número de documentos científicos recuperados em comparação com outras bases de dados (por exemplo, PubMed, Redalyc e SciELO). Para tanto, foram realizadas cinco análises utilizando determinados descritores e um intervalo de tempo de artigos publicados. Com isso, verificou-se um maior número de resultados no Portal CAPES em relação às bases de dados investigadas, caracterizando-o como uma poderosa ferramenta para o público interessado em pesquisar e recuperar documentos científicos de alta qualidade, especialmente quando comparados com bases de dados no exterior (ou seja, PubMed). Adicionalmente, para uma maior expansão e otimização do Portal de Periódicos CAPES, é importante que este seja cada vez mais valorizado, tanto a nível nacional como internacional. Para isso, deve-se buscar uma maior divulgação de seus conteúdos e possibilidades aos usuários, por exemplo, pesquisadores, professores e estudantes, além de maiores investimentos em pesquisa e desenvolvimento no país.

Palavras-chave: Conteúdo técnico-científico; Repositório; Pesquisa acadêmica; Revisão sistemática; Revisão narrativa.

Resumen

El Portal de Periódicos CAPES, creado en la década de 2000, tiene convenio con 39.000 revistas científicas, lo que le permite ser una base de datos amplia y segura para acceder a artículos científicos en los más diversos campos. El Portal brinda acceso a 390 bases de datos/colecciones, incluidos datos nacionales e internacionales, bibliotecas y repositorios digitales y colecciones de revistas. En el portal existen 13

categorías científicas, siendo la más importante Multidisciplinaria, seguida de Ingeniería, Ciencias Sociales Aplicadas y Ciencias Exactas y de la Tierra. El Portal de Periódicos CAPES permite aplicar diferentes filtros para realizar búsquedas, lo que facilita encontrar artículos adecuados para revisiones sistemáticas, por ejemplo. Así, este estudio tuvo como objetivo determinar el desempeño del Portal de Periódicos CAPES midiendo el número de documentos científicos recuperados en comparación con otras bases de datos (por ejemplo, PubMed, Redalyc y SciELO). Para ello, se realizaron cinco análisis utilizando determinados descriptores y un intervalo de tiempo de artículos publicados. Con ello, resultó un mayor número de consultas desde el Portal CAPES respecto de las bases de datos investigadas, caracterizándolo como una poderosa herramienta para el público interesado en la búsqueda y recuperación de documentos científicos de alta calidad, especialmente si se compara con bases de datos extranjeras (p.ej., PubMed). Además, para una mayor expansión y optimización del Portal de Periódicos CAPES, es importante que sea cada vez más valorado, tanto a nivel nacional como internacional. Para ello, se debe buscar una mayor difusión de sus contenidos y posibilidades a los usuarios, es decir, investigadores, profesores y estudiantes, además de mayores inversiones en investigación y desarrollo en el país.

Palabras clave: Contenidos técnico-científicos; Repositorio; Investigación académica; Revisión sistemática; Revisión narrativa.

1 Introduction

Science being a social process brings a far-reaching impact on society. It is from science that development occurs in the most diverse fields, directly and indirectly affecting people's lives (Bornmann, 2012). The dynamics of science, i.e., its progress, is usually demonstrated by a constant flow of scientific information published, especially as research articles. Currently, there are thousands of journals worldwide where researchers can publish their findings, but for other researchers to find articles in their area of expertise, databases are commonly used, because it is not possible to know all journals in the area and it is virtually unfeasible to research them individually (Šubelj et al., 2015).

Scientific databases can be considered complex networks where several journals are attached and where it is possible to identify, for instance, the authors, the year of publication, and the institutions linked to the research, besides other relevant information. Each database offers specific functionalities, with some geared toward certain areas of activity. Thus, these databases serve as information management structures that store, organize, index, maintain, and mine heterogeneous scientific data. The task of consulting and analyzing the provided data falls on the researchers themselves (Gupta, 2009).

Among the many databases available in the world, in Brazil, the CAPES Periodicals Portal (CPP) of the Brazilian Federal Agency for Support and Evaluation of Graduate Education (Fundação Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, in Portuguese) stands out. Such a database has been financed by the federal government through the CAPES Foundation.

The CAPES institution was established in 1951 as a "National Campaign for the Advancement of Graduate Studies", during the government of President Getúlio Vargas (1950-1954). In 1964, ceased to be directly subordinated to the Presidency of the Republic, being taken over by the Ministry of Education (MEC) where it remains until the present day (Marengo, 2015). CAPES has been one of the three governmental agencies that fund research and development (R&D) in Brazil. Besides, harboring the CAPES Periodicals Portal (CPP) database, CAPES also plays a significant role in promoting scientific and technological advancements by financing graduate scholarships and research projects (McManus; Baeta Neves, 2021).

In a timeline approach, the CPP was preceded by the creation of a program for libraries at Higher Education Institutions (IES, in Portuguese) by MEC. From this initiative, five years later the Support Program for the Acquisition of Periodicals was created, which gave rise to the CPP, officially launched on November 11, 2000. After that, CAPES centralized and optimized the acquisition of this type of content, through direct negotiations with international publishers (Brazil, 2023).

Currently, the CPP not only has agreements with publishers and/or journals but also with several databases, i.e., with the integration of other databases in its collection. Currently, it is possible to access over 39,000 journals indexed with full texts, besides 390 databases and collections through that Portal (Brazil, 2023). Thus, based on its importance for national and international research and the consolidation of information, this study aims to describe the functionality of the CPP. Specifically, this report will focus on how the search process is facilitated by CPP which gathers different areas of research.

2 From its creation to the present

The CAPES Periodicals Portal was created in the 2000s and regulated by Ordinance CAPES nº 34 of July 2001, which describes the database's goal of facilitating and promoting national and international scientific and technological information to institutions of Higher Education and Research (Brazil, 2001). Interestingly, before 2001 CAPES' financial resources were transferred directly to higher education institutions to maintain their printed collections of scientific journals. However, starting in 2002 the resources were centralized at CAPES, where massive investments were made in electronic journals, expanding and updating contents within the Portal in many basic and applied areas of the science. Importantly, in that year the CPP received the Institutional Award from the Regional Council of Librarianship for its performance in making

scientific material available, in addition to having developed the CAPES Thesis Bank, aiming to disseminate summaries of theses and dissertations defended in postgraduate programs in Brazil since 1987 (Brazil, 2023).

In 2003, important partnerships were established by the CPP, for example, the signing of agreements with the Financier of Studies and Projects (FINEP, in Portuguese), with the Brazilian Agricultural Research Corporation (EMBRAPA, in Portuguese), with the Ministry of Science and Technology (MCT, in Portuguese), and with the Electronic Periodicals Consortium (COPERE, in Portuguese). Thus, new partnerships began to subscribe as part of the Portal's content. During this period, the collection already contained 3,379 journals with full text, with users linked to 99 institutions, and access to the content of 15 reference bases worldwide (Brazil, 2023).

In 2007, the CPP underwent a Functional and Technological Update Project in collaboration with the National Education and Research Network (RNP) to enhance the management of electronic resources, i.e., databases and periodicals. This new system included the Metasearch tool that enables users to optimize their queries in different databases, using author names, subjects, and keywords. In that year, the Portal's collection comprised 11,419 journals and 125 reference databases (Brazil, 2023).

In 2009, the Portal had already accumulated a collection of 15,000 periodicals with full text and 126 reference databases. In addition, the number of participating institutions increased, including foundations and universities that previously didn't have free access, as they did not have postgraduate programs recommended by CAPES. From the inclusion of these institutions, the Portal currently encompasses 308 partners, more than four times the number of users than in 2001. Additionally, still, in 2009, the CAPES Journal Portal Update Project implemented new improvements to the Portal, according to suggestions from the members of the Advisory Board of the Periodical Acquisition Support Program and the librarians who also tested the Platform. Further, adjustments were made and the layout and contents in a new version were released on November 11 (Brazil, 2023).

In 2011, the mobile version of the Portal was developed for smartphones and tablets, as well as a new feature on the home page, i.e., Really Simple Syndication (RSS), which allows users to directly access articles published in real-time both by national and international publishers. In 2012, a new search tool was also implemented, which allows the integration of the entire collection in a single search, retrieving data with greater response speed, and searching for the typed term in all the contents available on the Portal. In addition, new filters have been added to further refine

the search for contents of interest. In 2018, a new update was implemented on the Portal, allowing the user at the CPP's home page to "search for a subject", to search in a single place all the query possibilities by topic, as identified by the icons: CAPES Periodicals Portal, Google Academic, PubMed, and EBSCO Discovery Service (Brazil, 2023).

In 2019, the CAPES Journal Portal encompassed 426 active participating institutions, with a collection of 49,247 journals, 331,565 documents, 139 full-text databases, 135 reference databases, 43 reference works, 12 patent databases, 32 databases of books, reports, monographic and other material, 42 databases of statistics, 2 databases of technical standards, and 15 audiovisual databases. Currently, 39,000 journals and 390 databases are available to the audience (Brazil, 2023).

Regarding the financial support for keeping available to the scientific community the CPP, between 2000 and 2020, it is estimated that the total budget for investments in the Portal was US\$ \$1,196,176,648.71. Between 2001 and 2019 there were 582,853,068 accesses to the full texts of journals and 983,708,969 accesses to reference databases, totaling 1,566,562,037 accesses to the Portal in all areas of knowledge (Ramalho; Silva; Rocha, 2020).

As a mission, the Portal makes clear its intention to promote the strengthening of postgraduate programs in Brazil through the democratization of online access to high-level international scientific information. For that, CPP has specific aims, as follows: a) promotion of unrestricted access to the content available by users and the sharing of Brazilian research at an international level; b) training of users, e.g., professors, researchers, students, and employees, in the use of the collection for their teaching, research, and extension activities; c) the development and diversification of the Portal's content through the acquisition of new titles, databases and other types of documents, bearing in mind the interests of the Brazilian academic community; d) the increase in the number of institutions that use the Portal, according to the criteria of academic and research excellence defined by CAPES and the Ministry of Education (Brazil, 2023).

3 Databases available on the Portal

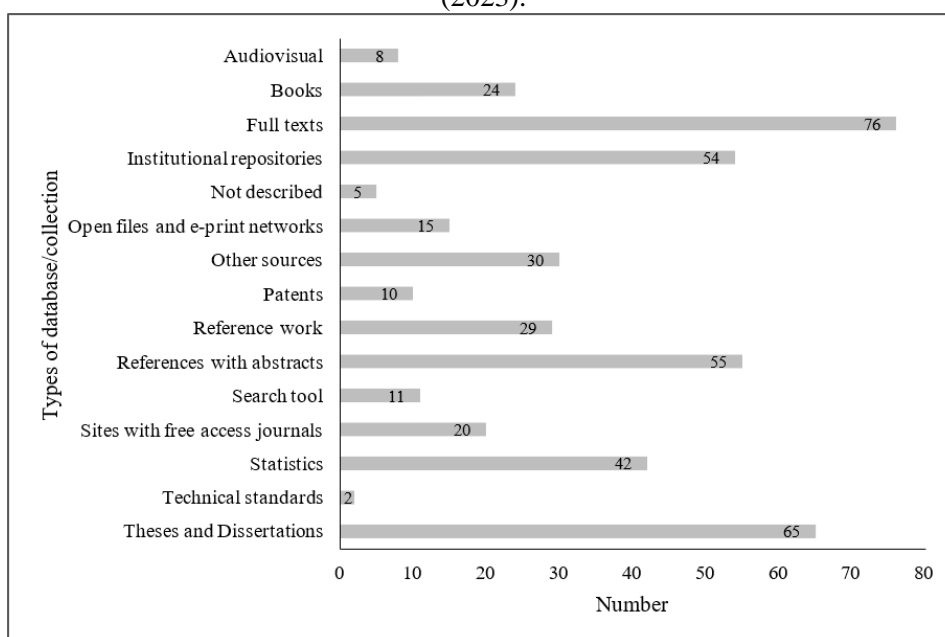
The Portal provides access to 390 databases and collections, including national and international databases, digital libraries and repositories, and journal collections¹. This allows the

¹ Available at: <https://www-periodicos-capes-gov-br.ez38.periodicos.capes.gov.br/index.php/acervo/lista-a-z-bases.html>. Access in: 15 mar. 2024.

CPP to provide free access to a variety of materials (Brazil, 2023), however, the high investment costs pose a challenge for the Brazilian government (Ramalho; Silva; Rocha, 2020).

The types of data/collections made available include a wide range of documents, (e.g., audiovisual, books, patents, full texts, theses) as shown in Figure 1. Of these, the same data/collections may be included in more than one of these divisions described by the CPP (Figure 1).

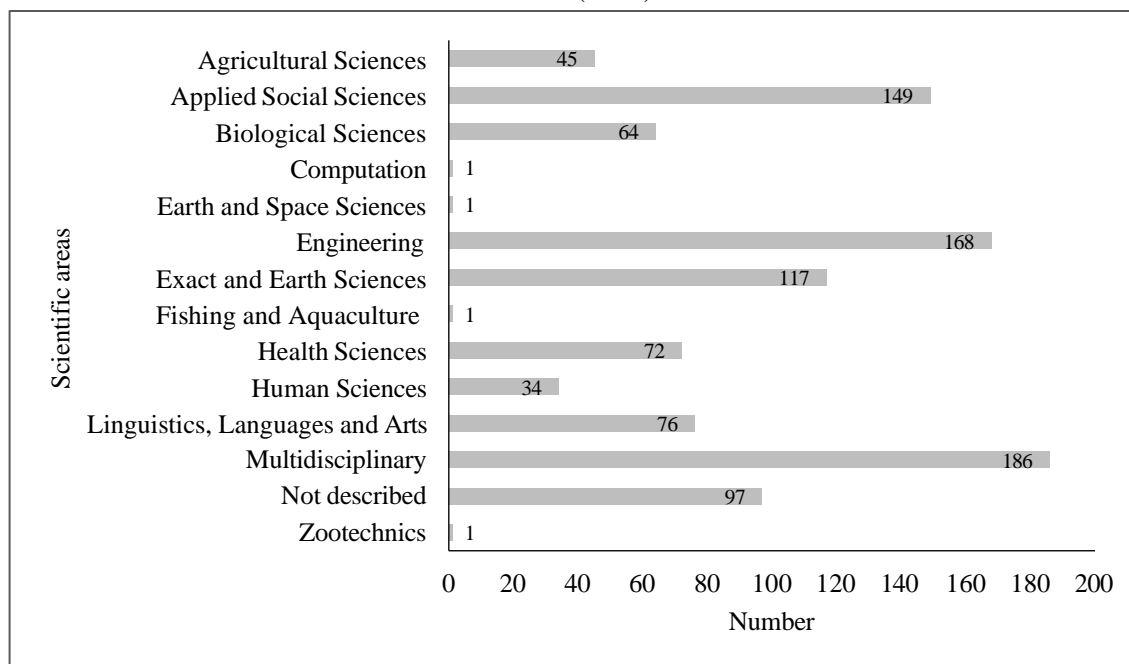
Figure 1 - Types of records found in the database/collection available on the CAPES Periodicals Portal (2023).



Source: CAPES Periodicals Portal (2024).

From the technical-scientific content available on the Portal, 13 scientific areas are found and the databases and collections made available can fit into one or more of these. Thus, the Multidisciplinary area has 186 databases/collections, followed by Engineering (168), Applied Social Sciences (149), Exact and Earth Sciences (117), in addition to others, such as Linguistics, Languages, and Arts (76), Health Science (72), Biological Sciences (64), Agriculture Sciences (45), Human Sciences (34), Computation (1), Earth and Space Science (1), Fishing and Agriculture (1), and Zootechnics (n = 1). Furthermore, for 97 databases/collections, the areas are not described, as they have been considered multidisciplinary publications, especially those referring to university repositories, with publications of dissertations and theses (Figure 2, Appendix).

Figure 2 – Scientific areas and their databases and collections made available by the CAPES Periodicals Portal (2023).



Source: CAPES Periodicals Portal (2024).

4 Comparison with other scientific databases with research examples

The CAPES Periodicals Portal, in addition to serving researchers to access scientific methodologies and find articles to discuss their experimental results, for example, also allows literature reviews to be carried out to verify the state of the art of a given academic topic. Due to the wide database/collection available, the Portal can be used to conduct different reviews such as argumentative, integrative, historical, methodological, theoretical, and systematic (Jahan et al., 2016). Among these, the systematic review can be easily performed, since the platform allows the definition of several variables, such as filters, type of documents, language, and publication date. As described by Page et al. (2021), the systematic review serves many critical functions, providing syntheses of the state of knowledge in a field, and generating perspectives and gaps in scientific research. To do this, the authors must provide a transparent, complete, and accurate report of what was done. Guidance for conducting a systematic review is provided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. It describes elements that need to be followed, such as eligibility criteria, information sources, search strategy, selection process, data collection process, data items, and others (PRISMA, 2023).

Based on the systematic review, to demonstrate the applicability of the CPP in

comparison to other scientific database platforms, 5 systematic and broad surveys were carried out to verify the number of documents contained and retrieved from the platforms investigated. The searches were carried out in the PubMed, Redalyc, and SciELO databases, using the following filters: keywords, period of analysis, and language. No specific filters were used for the type of material, given that each database determines different possibilities, which could interfere with the quality of the research. Only publications in the English language were considered for all studies.

In the first search, the keywords “Seaweed” AND “Food” were used, considering the period 2018-2022 (last 5 years). From the results, the databases CPP returned 3,305 queries, PubMed registered 1,657, Redalyc 34, and SciELO 18 (Figure 3). Thus, one could note the superior amount of content available on the CAPES Portal, even though several university repertoires have been included in the search. Additionally, it is worth mentioning that 3,293 documents retrieved in the search were scientific articles, i.e., 99,63% of the published works.

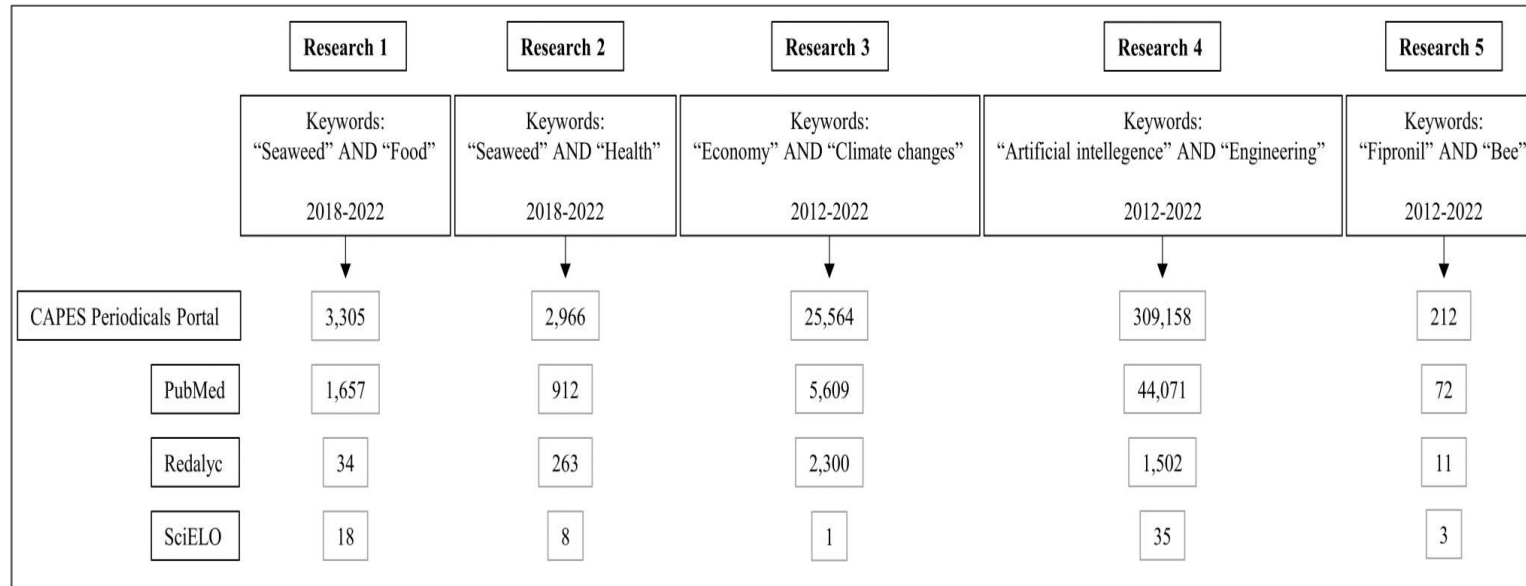
In the second search, the same filters were used as described for the first one, but the keyword "Food" was changed to "Health" ("Seaweed" AND "Health"). By doing so, a total of 2,966 general documents were found in CPP, being 2,755 articles published in peer-reviewed journals. Additionally, 912 results were found in PubMed, 263 in Redalyc, and 8 in SciELO databases (Figure 3).

In a third search, the keywords “Economy” AND “Climate changes” were used, considering articles published between the years 2012 to 2022. As a result, 25,564 general documents were recovered from the CPP, of which 23,648 were scientific articles, as 5,609 results returned from searching on PubMed, 2,300 in Redalyc, and 1 in SciELO databases (Figure 3).

In the fourth search performed, the keywords “Artificial Intelligence” AND “Engineering” were searched, with articles published between the years 2012 to 2022. A total of 309,158 general documents were found in CPP, being 252,423 scientific articles. The search on PubMed resulted in 44,071 documents, while 1,502 were found on Redalyc and 35 on SciELO (Figure 3).

Finally, the fifth survey was divided into two stages, where an attempt was made to further refine the search based on a more specific theme. Initially, the keywords "Fipronil" AND "Bee" were used, considering the years 2012 to 2022. In this sense, again the PCC returned and quite superior number of documents, i.e., 212, followed by PubMed (72), Redalyc (11), and SciELO (3) (Figure 3).

Figure 3 - Flowchart of the systematic research carried out in the databases CAPES Periodicals Portal, PubMed, Redalyc, and SciELO according to the keywords used for searching the scientific documents.



Source: Prepared by the author (2023).

In a follow-up analysis, the last search was refined by including the keyword “*Apis mellifera*” in the others and filtering articles published between the years 2018 to 2022. As a result, a total of 69 general documents were returned from the CPP, of which 66 were scientific articles. In addition, 10 were found in PubMed and only 1 in Redalyc and SciELO databases. To verify the discrepancies, a more detailed analysis of these manuscripts was performed. To this end, all files found in each database were tabulated separately in different tabs in Microsoft Office Excel (.xlsx file format), and the number of articles was recorded. Subsequently, in a single tab, the articles were compared based on their title and year of publication. It was verified that all the articles retrieved from the PubMed database were also present in the CPP, as well as the only article returned from SciELO. Interestingly, the only article found in Redalyc for the keywords used was not detected in CPP. However, when searching the CPP using the title of the manuscript separately (i.e., Effect of different *Bacillus thuringiensis* strains on the longevity of Africanized honey bee) the document was recovered. When analyzing the paper in its entirety, it can be seen that the word “fipronil” appears only once in the list of references in the manuscript, which demonstrates that the filter used by the CPP was quite sensitive and discarded the manuscript.

As shown above, through the simple searches carried out on the scientific databases investigated, the CPP provided quite expressive numbers of publications in the most varied fields of science, which allows systematic reviews to be carried out using that Portal, without the need for searching publications in additional databases. The robustness of the CAPES Portal and the filters available therein allow one to perform refined analyses, without the need for extensive mapping of articles that do not bring relevant aspects to the research, i.e., that are not directly related to the searched subject.

However, it should be noted that due to the diversity of filters available in the advanced search mode of the CPP, users may find difficulty in extracting information correctly. To remedy this problem, the Portal conducts online, free, interactive, and full-time training for all areas of knowledge, with pre-defined schedules that are made available on its calendar². According to a study conducted by Almeida et al. (2015), training on the platform proved to be essential, positively influencing the acquisition and development of information skills related to the search and retrieval of information.

² Available at: [https://www.periodicos-capes.gov-br.ez1.periodicos.capes.gov.br/index.php/treinamentos/calend%C3%A1rio.html](https://www.periodicos-capes.gov.br.ez1.periodicos.capes.gov.br/index.php/treinamentos/calend%C3%A1rio.html). Access in: 15 mar. 2024.

5 Prospects and gaps

Ensuring the budget for the maintenance of the CAPES Portal is essential for the advancement of science in Brazil. Undergraduate and postgraduate students, teachers, professors, and researchers have made continuous use of this important system around the country and abroad, so its maintenance must be guaranteed. In the same way, it is also necessary to seek to expand it, to always provide high-quality scientific information to the interested audience. Finally, the importance of promoting the CPP is highlighted, not only in undergraduate and graduate courses in Brazil but also at the international level.

As described by Almeida, Guimarães, and Alves (2010) and Ramalho, Silva, and Rocha (2020), the CPP has assumed a preponderant role as a State Policy in Brazil that promotes access to high-quality scientific information. The literature available in the country can be compared to those provided in universities of developed countries. However, when analyzing the Brazilian investment in R&D, a lower value is found i.e., \$42,167.8 M in PPP\$ (Purchasing Power Parity), meaning around 1.3% of the gross domestic product (GDP), in comparison to the USA (2.7% GDP) and China (2% GDP). Besides, Brazil presents 887 researchers per million inhabitants, while USA and China have 4,205 and 1,089 researchers per million inhabitants, respectively. Thus, it appears that greater government investments are needed for the country to make even more advances in the area of R&D (McManus; Baeta Neves, 2021) as the CPP keeps being an essential tool for that.

6 Conclusion

The CPP is a secure and extensive database that allows one to search a huge amount of scientific information in the most diverse areas. The ease with which analyses can be carried out in the Portal, especially thanks to the regular updates that include several filters, makes it possible to carry out narrative and systematic reviews, as well as being essential for the discussion of experimental research results. Compared to other databases abroad, the CPP presents a greater number of published scientific articles, which can enrich national and international research works, allowing more journals to be known and therefore appreciated. For its functionalities to always remain in maintenance, always seeking to optimize searches and include more collections, the Portal needs to be more valued, for which professors and students must use and disseminate the system more. In addition, it should be noted that Brazil needs to invest more in R&D to value the

science produced in the country.

Acknowledgment

The research was supported by grant 2023/03886-1 to A.N. from São Paulo Research Foundation (FAPESP); by grants 304657/2019-0 (M.M.) and 307571/2019-0 (G.P.P.L.) from National Council for Scientific and Technological Development (CNPq).

References

ALMEIDA, E. C. E.; GUIMARÃES, J. A.; ALVES, I. T. G. Dez anos do Portal de Periódicos da CAPES: histórico, evolução e utilização. **Revista Brasileira de Pós-Graduação**, Brasília, v. 7, n. 13, p. 218-246, nov., 2010. DOI: <https://doi.org/10.21713/2358-2332.2010.v7.194>. Available at: <https://rbpg.CAPES.gov.br/rbpg/article/view/194/188>. Access in: 05 ago. 2023.

ALMEIDA, F. G.; CENDÓN, B. V. Avaliação do impacto do treinamento sob a perspectiva da competência informacional: o caso do Portal de Periódicos da CAPES. **Em Questão**, Porto Alegre, v. 21, n. 1, p. 26-50, jan./abr., 2015. DOI: <https://doi.org/10.19132/1808-5245211.26-50>. Available at: <https://seer.ufrgs.br/EmQuestao/article/view/49451>. Access in: 07 ago. 2023.

BORNMAN, L. Measuring the societal impact of research: research is less and less assessed on scientific impact alone – we should aim to quantify the increasingly important contributions of science to society. **EMBO Reports**, v. 13, n. 8, p. 673-676, jul., 2012. DOI: <https://doi.org/10.1038/embo.2012.99>. Available at: <https://www.embopress.org/doi/full/10.1038/embo.2012.99>. Access in: 07 ago. 2023.

BRAZIL. Ministério da Educação. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. **Portaria nº 34, de 19 de julho de 2001**. Brasília, 2001.

BRAZIL. Ministério da Educação. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. **Periódicos CAPES**. Brasília, 2023. Available at: <https://www-periodicos-CAPES.gov-br.ezl.periodicos.CAPES.gov.br/>. Access in: 09 ago. 2023.

GUPTA, A. **Scientific databases**. In: Encyclopedia of Database Systems. Springer US, 2009. Available at: http://www.periodicos.CAPES.gov.br/images/documents/Portaria_34_19-07-2001.pdf. Access in: 07 ago. 2023.

JAHAN, N. et al. How to conduct a systematic review: a narrative literature review. **Cureus**, v. 8, n. 4, p. 1-6, nov., 2016. DOI: <https://doi.org/10.7759/cureus.864>. Available at: <https://www.cureus.com/articles/5127-how-to-conduct-a-systematic-review-a-narrative-literature-review#!>. Access in: 10 ago. 2023.

MARENCO, A. When institutions matter: CAPES and political science in Brazil. **Revista de Ciencia Política**, Chile, v. 35, n. 1, p. 33-46, 2015.

MCMANUS, C.; BAETA NEVES, A. A. Funding research in Brazil. **Scientometrics**, v. 126, n. 1, p. 801-823, nov., 2021. DOI: <https://doi.org/10.1007/s11192-020-03762-5>. Available at: <https://link.springer.com/article/10.1007/s11192-020-03762-5>. Access in: 12 ago. 2023.

PAGE, M. J. et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. **BMJ**, v. 372, n. 71, p. 1-9, mar., 2021. DOI: <https://doi.org/10.1136/bmj.n71>. Available at: <https://www.bmj.com/content/372/bmj.n71>. Access in: 12 ago. 2023.

PRISMA. **PRISMA Checklist**. Ottawa Hospital; University of Oxford; Monash University: PRISMA, 2023. Available at: <http://www.prisma-statement.org/PRISMAStatement/Checklist>. Access in: 20 jul. 2023.

RAMALHO, W. D.; SILVA, P. A.; ROCHA, J. B. T. Vinte anos do portal de periódicos da CAPES. **Revista Brasileira de Pós-Graduação**, Brasília, v. 16, n. 36, p. 1-38, nov., 2020. DOI: <https://doi.org/10.21713/rbpg.v16i36.1728>. Available at: <https://rbpg.CAPES.gov.br/index.php/rbpg/article/view/1728>. Access in: 02 ago. 2023.

ŠUBELJ, L. et al. Quantifying the consistency of scientific databases. **PloS One**, v. 10, n. 5, p. 1-16, maio, 2015. DOI: <https://doi.org/10.1371/journal.pone.0127390>. Available at: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0127390>. Access in: 03 ago. 2023.