

WIT Transactions on Ecology and the Environment

VOLUME 263, 2024



Sustainable Tourism 2024

CHARACTERISATION OF SHORT-TERM RENTALS IN GRANADA, SPAIN: SPATIAL ANALYSIS

SOFÍA MENDOZA DE MIGUEL¹, RUBÉN VILLAR NAVASCUÉS¹, MANUEL DE LA CALLE¹,
PATRICIA VALENZUELA², BEGOÑA GUIRAO², ARMANDO ORTUÑO³,
DANIEL GÁLVEZ-PÉREZ², FERNANDO DE MINGO² & JAIRO CASARES⁴

¹Department of Geography, Universidad Complutense de Madrid, Spain

²Department of Transport Engineering, Regional and Urban Planning, Universidad Politécnica de Madrid, Spain

³Department of Civil Engineering, Universidad de Alicante, Spain

⁴Technical Civil Engineer, Spain

ABSTRACT

The popularisation of short-term rentals (STRs) as an alternative to traditional accommodation has changed the supply of accommodation in cities, as well as how tourists make use of the city. This type of accommodation is delocalised, which implies a greater use of the entire urban area, as well as its services and transport infrastructures. However, most of the supply follows the patterns of traditional accommodation and is concentrated in city centres, where most of the tourist resources are located, increasing the pressure on these spaces. This research aims to characterise the STRs in Granada to determine the mode and intensity of use of these accommodations in the urban area. The methodology is based on a detailed analysis by census sections of the supply of STRs, considering the number of accommodations and beds offered, their level of occupancy, the average rate per night, the average length of stay and indicators of tourist intensity. For this purpose, the database of the Andalusia Tourism Registry for the year 2023 and the database provided by the AirDNA platform for the period from January 2022 to June 2023 have been analysed and spatially represented at the census tract scale. The results indicate that Granada shows spatial distribution patterns where STR align closely with traditional accommodations, leading to increased tourist pressure in densely populated neighbourhoods. The highest concentrations are found around the historic centre and adjacent to the Alhambra-Generalife complex, specifically in the Albaicín and San Matías-Realejo neighbourhoods. These areas demonstrate higher occupancy rates that are on the rise, underscoring the need for measures to regulate the STR in Granada.

Keywords: short-term rentals, touristification, Airbnb, collaborative economy.

1 INTRODUCTION

In the years before the COVID-19 pandemic and again after the end of mobility restrictions, many European cities with cultural and monumental attractions, such as Granada, have experienced a rapid growth in the arrival of tourists and excursionists [1]. This tourist growth has been linked to processes of touristification with effects on space of a formal, functional, social and symbolic nature [2] in certain spaces, especially urban centres, where the leisure and tourism offer, and heritage and tourist resources are concentrated.

According to de la Calle Vaquero [3], touristification is manifested, in general terms, in: (a) the increase in the presence of visitors in the central areas of the city (to which can be added other areas of high tourist interest in the first urban periphery, as in the case of Granada); (b) the increase and expansion of consumer activities aimed at tourists: there is a proliferation of different forms of tourist accommodation (large hotel chains, boutique hotels, tourist apartments, short-term rentals (STRs), hostels, etc.), an increase in the number of souvenir shops, the opening of currency exchange businesses and the emergence of new forms of urban mobility linked to the development of digital businesses such as chauffeur-driven shuttle services, electric bike rentals and motorbike rentals; (c) a transformation of the commercial landscape, which is tending to become more Disneyfied and franchised: fast food



and take-away businesses increase, there are changes in opening hours, prices and even customer service languages; (d) the tertiarisation of housing linked to new digital business models such as Airbnb and Vrbo (formerly HomeAway); and (e) the modification of the urban landscape, which is transformed into a recognisable tourist landscape in many European urban centres.

All these changes have several effects on city life, such as the displacement of residents away from tourist areas due to the proliferation of STRs and other types of tourist accommodation. As a result of increasing concern about the effects of STRs on residents' lives [4]–[7], some administrations have sought to regulate this activity [8], [9].

At the local (city) level, the regulation of tourist accommodation is mainly carried out from an urban planning approach, through instruments that refer to the physical planning of the city and that regulate the implementation of land uses. Accommodation, in its different types, is treated as a tertiary land use, with different levels of compatibility with residential use. The urban planning regulations, which are part of the urban development plans, regulate the procedure for the implementation of this land use. This procedure involves the processing of a municipal licence and may even involve the drawing up of a specific plan, as is the case in Barcelona and Madrid. In general terms, the regulations adopted make use of the practice of zoning. All the studies carried out recognise that tourist pressure is not homogeneous but tends to be concentrated in certain areas of urban centres. Thus, the territorial strategy is to contain the growth of accommodation in central areas by implementing the most restrictive measures such as higher licensing requirements or even the establishment of a moratorium. In contrast, in other parts of the city less affected by touristification, measures are much lenient, and accommodation is allowed to continue to grow. Indirectly, these zone-related differences in regulation may favour the expansion of tourism activities in peripheral areas, without jeopardising the tourism success of the destination as a whole [8]. As we will see in Section 2, since Granada intends to adopt a regulation and to apply zoning, it is appropriate to study the concentration of STR activity in the city.

Therefore, the aim of this research is to characterise the STRs in Granada in order to determine the mode and intensity of use of these accommodations in the urban area. The paper is structured as follows: the study area – the city of Granada – and the methodology are presented. The results section provides data and indicators that can help policy makers to make decisions on the application of the Junta de Andalucía's STR decree for the regulation of STRs. Finally, the conclusions of the paper are presented.

2 STUDY AREA

Granada is one of the main Andalusian cities, both in terms of population and economic activity and in terms of attracting tourists. In fact, the tourism sector is one of the main pillars of the economy and employment in this city [10], which has an important historical and cultural heritage, as well as international recognition. Granada has experienced a remarkable growth in the number of visitors to become the city with the highest number of tourists per resident (243,059 inhabitants in 2022 [11]) and one of the main urban destinations in Spain. According to the National Statistics Institute (NSI) [12], the city receives more than 4.5 million travellers per year between those who stay overnight and those who only visit for a day [1], [13]–[15].

The tourist area of Granada coincides with the places where the most emblematic monuments are located, some of which are declared World Heritage Sites by UNESCO. Above all, the 'Alhambra and Generalife' complex stands out, the most visited monument in the country with more than 2.5 million visitors in 2023 (a number very close to the maximum



capacity of 2,763,500 visitors per year regulated by its public and marketing regulations) [14]–[16].

The city of Granada has shown signs of touristification for decades. Smith in his 1996 work [17] highlighted the phenomenon of tourist gentrification in the city, and de la Calle-Vaquero in his 2002 work [18] already pointed to the specialisation of tourism in the historic districts. However, it is only in recent years that critical voices have arisen in the face of the increase in tourist arrivals and the proliferation of STRs associated with this tourist growth, which is why Granada City Council has opted to regulate them. In February 2024, the Junta de Andalucía (regional government) approved Decree 31/2024, of 29 January, which modifies various regulations on tourist accommodation, tourist apartment establishments and hotels in the Autonomous Community of Andalusia. This decree gives local councils the power to put a stop to STRs. One of the cities that contemplates the application of this decree at municipal level is Granada, through the modification of the General Urban Development Plan (PGOU) that has been in force in the city since 2001. Until the final approval of the plan, the Granada City Council has suspended the granting of new licences for STRs. The modification of the PGOU contemplates a series of mandatory requirements such as having independent supply installations (electricity, water or telephone), as well as independent access from the street, a measure that has already been approved in the regulation of STRs in Madrid [19]. Despite the intention to approve a specific regulation for STRs, the Granada City Council denies that the city is under stress, except in specific situations [20].

This study is based on the fundamental idea that not all the municipality of Granada is affected in the same way by the growth of STRs and that the rest of the accommodation and its concentration, although to a lesser extent, also favours the touristification of certain areas. This study aims to analyse the spatial distribution of the supply of all types of accommodation in the city, as well as, in a more detailed way, of the STRs (Section 3), also offering indicators of tourist density and intensity at the census section level.

3 DATA AND METHODS

Recently, some studies have already analysed the spatial distribution of tourism supply using data from the Andalusian Tourism Registry (ATR) [21] or data mapped from Airbnb [14], at the neighbourhood scale. This study combines the use of different sources and performs an analysis at the census section level, to obtain an updated and more detailed picture of the phenomenon and improve its characterisation. To meet the proposed objectives, a descriptive spatial analysis has been carried out at the census section and district level of the following variables: the number of accommodations and beds offered, their spatial distribution, their occupancy level, the average rate per night, indicators of tourist intensity (beds in tourist accommodations per 1,000 registered inhabitants and percentage of STR concerning the total number of dwellings).

Three sources of information were used to extract the data. Firstly, for the analysis of both the hotel and STRs offer, the database of the ATR for the year 2023 has been consulted, a database that the regional government of Andalusia makes available for consultation of the accommodation offer in the region (hotels, hostels, STRs, etc.). Secondly, to evaluate some of the characteristics of the STRs, the database provided by the AirDNA platform (a company that uses web scraping techniques to provide data from P2P tourist rental platforms) has been consulted for the period between January 2022 and June 2023. The analysis has focused on the high season, which in Granada coincides with October 2022, as since 2017 it has always registered the highest occupancy peak. This database, which mainly includes the STRs offered on the Airbnb platform, allows for a more in-depth analysis of this type of accommodation by analysing occupancy (calculated as the percentage of days of the month



booked), the type of accommodation (full or room), the average stay (days booked divided by total bookings), the maximum number of guests per accommodation or the average daily rate (ADR). The ADR according to AirDNA is a metric that represents the average revenue earned per occupied room paid per day. It is calculated by dividing the total revenue generated by nights booked by the number of nights booked, and cleaning fees are included in the calculation. To identify those accommodations that were active, only those that had a day available or booked in the month analysed were considered. Thirdly, for the calculation of the tourism density and intensity indicators, population and housing data at the census section level from the NSI's 2021 Population and Housing Census have been used.

4 RESULTS

4.1 Data from the Andalusian Tourism Registry

According to data from the ATR for 2023, the city of Granada has 3,309 accommodation units, with a total of 35,517 bed places. Hotel establishments and STRs provide a similar number of bed places, although the latter are much more numerous than the former (Table 1).

Table 1: Tourist accommodation in the city of Granada. (Source: ATR, 2023.)

Type	Establishments		Beds	
	Number	Percentage	Number	Percentage
Hotel establishments (hotels, guesthouses, hostels, etc.)	205	6.20	16,054	46.50
Tourist apartments	109	3.29	3,354	9.71
Tourist dwelling for rural accommodation	18	0.54	121	0.35
STR	2,977	89.97	14,998	43.44
Total	3,309	100	34,527	100

Hotel establishments make up the most traditional and consolidated offer of accommodation in urban destinations. Granada's offer is made up of 205 establishments with 16,054 beds. Most of the capacity corresponds to hotels in the strict sense of the term (102 establishments and 12,870 beds), mainly three-, and four-star hotels. Another traditional component is guesthouses (66 with 1,525 beds), with similar dynamics to hostels (21 and 714), especially those of the lowest category (Table 2). At another level, hostels, establishments with collective rooms that represent a relatively recent component of the accommodation offer in Spanish cities, stand out.

Tourist apartments also provide a significant accommodation capacity, with a total of 109 establishments (3.29% of the total) and 3,354 bed places (9.71). In contrast, there are only 18 rural tourist accommodation establishments, in all cases rural tourist accommodation dwellings: 18 units (0.54%) with 121 bed places (0.35%).

As far as STRs are concerned, they account for most of the registered accommodation establishments (2,977, 89.97%). On the other hand, their contribution in terms of accommodation capacity is slightly lower than that of hotel establishments, with 6,583 rooms (41.78%) and 14,998 bed places (43.44%). Thus, the average number of rooms per dwelling is 2.21 and the average number of bed places is 5.04. Regarding typologies, most of them are



Table 2: Hotel establishments in the city of Granada. (Source: ATR, 2023.)

Type and category		Establishments		Bed places	
		Number	Percentage	Number	Percentage
Youth hostels		16	7.80	945	5.89
Guesthouses		66	32.20	1,525	9.50
Hostel	1*	10	4.88	259	1.61
	2*	11	5.37	455	2.83
	Total hostels	21	10.24	714	4.45
Hotels	1*	5	2.44	167	1.04
	2*	13	6.34	546	3.40
	3*	40	19.51	2,348	14.63
	4*	37	18.05	8,607	53.61
	5*	6	2.93	1,160	7.23
	Grand luxury	1	0.49	42	0.26
	Total hotels	102	49.76	12,870	80.17
Total		205	100	16,054	100

complete dwellings (2,795), with the presence of dwellings offered by rooms being much more exceptional (182). It should be noted that this is a quantitatively very important supply, now almost equivalent in magnitude to the hotel component, and above all that it has grown vertiginously over the last few years. Among other factors, this growth has been encouraged by the ease of converting a property into a holiday home, which contrasts with the lengthy periods associated with the creation of a hotel establishment.

According to the 2022 Municipal Register, Granada has a population of 228,682 inhabitants. This means that there are 150.98 officially registered accommodation places per 1,000 inhabitants. If we limit ourselves to STRs, the figure is 65.58. These are very high figures, reflecting the high tourist pressure on the city. As a comparative example, in Donostia-San Sebastián, the figures are 92.99 accommodation places per 1,000 inhabitants and 32.99 for STRs. Moreover, this accommodation pressure is not homogeneously distributed, as tourists and tourist activities have very selective spatial consumption patterns. In this sense, the spatial distribution of accommodation supply also reflects a strong concentration. If we take as a reference the administrative districts of the municipality, we observe a strong concentration of supply in five districts which are above two thousand accommodation places between STR and traditional accommodation, which are the five districts which occupy the city centre, in order of places: Centro-Sagrario (8,495), San Matías-Realejo (8,302), Figares (4,534), Albaicín (3,038) and Ronda (2,263) (cf. Fig. 1). The distribution of accommodation types within each neighbourhood also reflects a very contrasting reality. As noted above, 46.5% of the tourist accommodation in Granada corresponds to hotel establishments and another 43.44% to STRs. This distribution is like the distribution registered in the neighbourhoods with the most accommodation places: Centro-Sagrario (57.69% and 42.31%), which also provides the largest accommodation capacity for the city, San Matías-Realejo (57.58% and 42.42%), Figares (66.08% and 33.92%) and Ronda (65.98% and 34.02%). On the other hand, Albaicín stands out for its strong specialisation in tourist accommodation, whose STR vacancies represent 74.79% of the total number of vacancies.

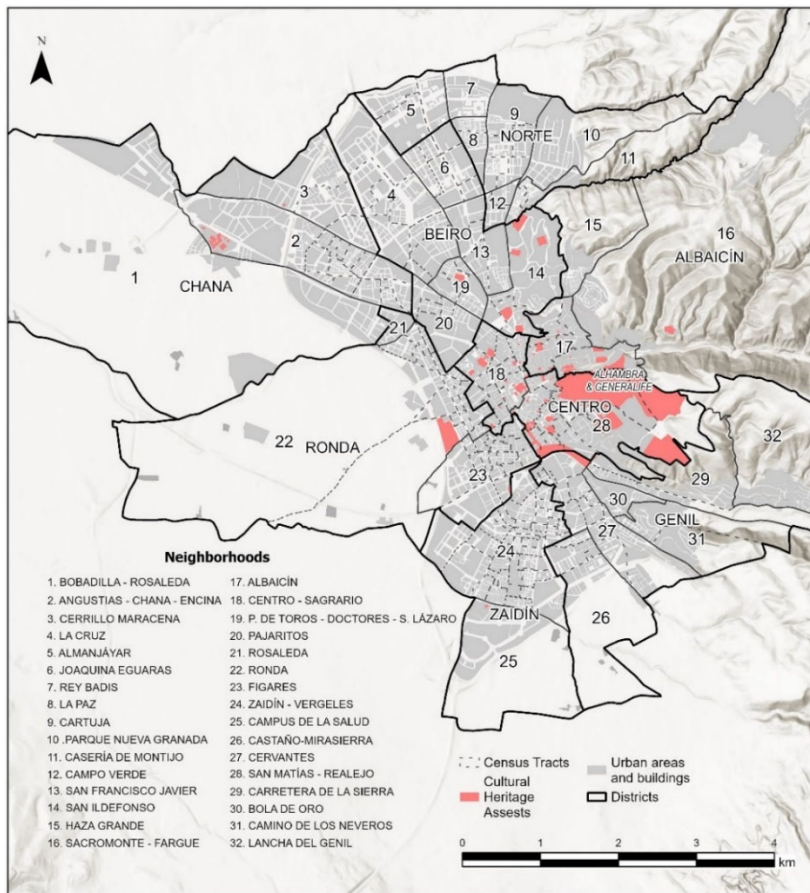


Figure 1: Neighbourhoods of Granada and its main tourist attractions.

Historically, this distribution pattern corresponds to a concentration of conventional accommodation in the city centre, where several large, high-class hotels were in the main streets and squares. At the same time, there was a wide range of hostels and guesthouses in shared-use buildings. Subsequently, there was a significant growth in the conventional offer in more peripheral areas, with the establishment of three and four-star hotels that took advantage of lower land prices with greater availability of surface area and accessibility by private vehicle. The recent wave of touristification, whose distinctive feature is the expansion of tourist housing, has led to the widespread introduction of this type of accommodation throughout the urban area. In the case of Granada, the penetration in the Albaicín neighbourhood stands out, a neighbourhood of undeniable tourist attraction, but with urban conditions that made it difficult to establish large hotels.

As noted above, at city level there are 150.98 officially registered accommodation places per 1,000 inhabitants. This average is much higher in the neighbourhoods close to the Alhambra and Generalife heritage complex: Centro-Sagrario (667.7), Albaicín (745.9) and San Matías-Realejo (878.2), where the installed accommodation capacity tends to be closer to the registered population (Table 3).

Table 3: Supply and indicators of tourist pressure in Granada's most overcrowded neighbourhoods. (Source: ATR, 2023.)

District	Neighbourhood	Population	STR beds	Remaining beds	Total beds	STR beds per 1,000 inhab.	Total beds per 1,000 inhab.	STR/total dwellings
Centro	San Matías-Realejo	9,453	3,522	4,780	8,302	372.6	878.2	20.9%
Albaicín	Albaicín	4,073	2,272	766	3,038	557.8	745.9	35.1%
Centro	Centro-Sagrario	12,723	3,594	4,901	8,495	282.5	667.7	14%
Beiro	San Ildefonso	4,209	631	528	1,159	149.9	275.4	8.4%
Ronda	Figares	19,316	1,538	2,996	4,534	79.6	234.7	5.6%
Chana	Bobadilla-Rosaleda	1,567	10	217	227	6.4	144.9	0.6%
Albaicín	Sacromonte-Fargue	2,525	234	84	318	92.7	125.9	7.7%
Genil	Carretera de la sierra	4,979	199	424	623	40	125.1	3.3%
Genil	Castaño-Mirasierra	5,403	30	535	565	5.6	104.6	0.7%
Beiro	Pajaritos	5,074	173	414	587	34.1	115.7	2.1%
Ronda	Ronda	20,243	770	1,493	2,263	38	111.8	2.3%

In terms of STRs, these three neighbourhoods also have the highest values, but the values for the Albaicín (557.8) are higher than those for Centro-Sagrario (282.5) and San Matías-Realejo (372.6), and in any case much higher than those recorded for the city (65.58). The percentage of STRs concerning residential dwellings is quite high in the most touristic neighbourhoods close to the heritage complex of the Alhambra and the Generalife. In Albaicín, 35.1% of dwellings are destined for STRs, 14% in Centro-Sagrario and 20.9% in San Matías-Realejo, very high percentages which testify to the tension in the area and explain the displacement of residents away from the most touristic areas of the city. Furthermore, if we focus the analysis on the census units, it can be seen in Fig. 2 that the centre shows the highest indicators of tourist pressure, a phenomenon which extends not to the whole of the Albaicín, but only to the lower part, which is more touristic and closer to the Alhambra and Generalife complex.

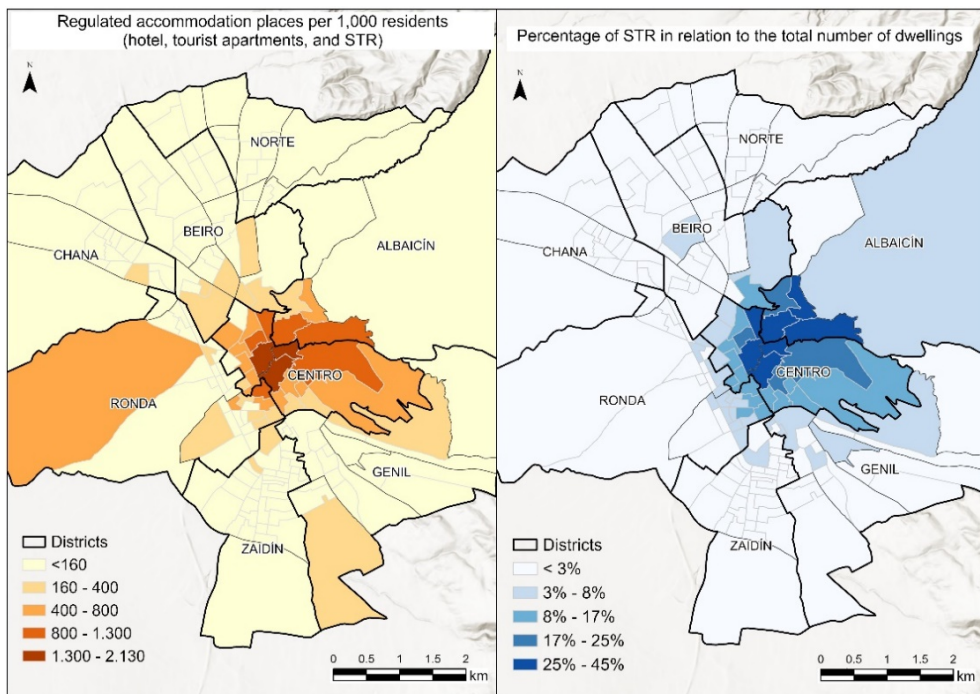


Figure 2: Indicators of tourism pressure and intensity by census tract (2023). (Source: Own elaboration with data from ATR, 2023.)

4.2 Data from AirDNA

According to the AirDNA data for the year 2023, the municipality of Granada has 3,203 STRs, totalling 16,015 bed places, which is 226 dwellings and 1,017 bed places more than those provided by the ATR database. These data mean that, according to the AirDNA database, there are 70.03 parking spaces per thousand inhabitants in Granada, a very high number which, moreover, as we saw in the previous section, is not evenly distributed throughout the urban area. However, considering the occupancy data, during the last high

season (October 2022), the total number of STRs with a day available or booked was limited to 3,125 and 13,370 beds.

As can be seen in Table 4, the vast majority of STRs are concentrated in the Centro district with 1,636 units representing almost half of the supply (52.3%), followed by Albaicín with 20% of the units. The average length of stay for the whole city is 2.9 days per booking made in a STR, with average values between 2 and 3 days for the most touristic census sections in the Centro and Albaicín districts.

Table 4: Distribution and characteristics of STRs by districts in October 2022. (Source: Own elaboration with data from AirDNA, 2022.)

District	Typology	Number of STR	Beds	Average beds per STR	ADR	Occupancy rate	Average length of stay
Centro	Entire home	1,368	6,270	4.58	126	57.52	2.46
	Room	268	703	2.62	69.16	43.51	1.89
Albaicín	Entire home	521	2,293	4.40	128	58	2.62
	Room	102	230	2.25	69.46	48.23	2.65
Ronda	Entire home	290	1,609	5.55	119.32	50.57	2.70
	Room	57	133	2.33	72.44	40.41	2.20
Beiro	Entire home	146	686	4.70	95.39	45.85	2.26
	Room	71	118	1.66	40.04	33.21	2.82
Zaidín	Entire home	81	407	5.02	99.52	42.05	2.80
	Room	50	89	1.78	37.19	38.77	3.50
Genil	Entire home	100	621	6.21	180.38	42.13	2.31
	Room	16	33	2.06	38.22	22.98	1.43
Chana	Entire home	16	76	4.75	110.43	33.06	3.16
	Room	15	24	1.60	45.71	27.74	2.38
Norte	Entire home	9	49	5.44	69.24	37.63	1.29
	Room	15	29	1.93	52.68	29.25	2.59
TOTAL		3,125	13,370	4.28	112.98	52.18	2.90

On the other hand, the AirDNA database allows us to know the type of renting of STRs depending on whether the whole house is rented or individual or shared rooms. In Granada, 80% of the ads represent complete dwellings, compared to 20% that are private or shared rooms, data that draw attention to the specialisation of this activity as a business, far removed from the initial spirit of the collaborative economy. In terms of occupancy, the trend is increasing in the period from January 2022 to June 2023. For example, in April 2022, occupancy was 54%, compared to 66% in the same month in 2023. The lowest occupancy months are January (37% in 2022 and 41% in 2023) and July (41% in 2022), while the highest occupancy months are April (54% in 2022 and 66% in 2023) and October (58% in 2022). Spatially, the highest occupancy values, located in the range of 50%–66%, are in the most touristic neighbourhoods of the Centro and Albaicín districts. It is also worth noting the high occupancy values of census tracts in neighbourhoods close to the aforementioned districts, such as Figares, Ronda, San Ildefonso or Carretera de la Sierra (Fig. 3).

Likewise, the AirDNA database allows us to know the ADR in the city of Granada. For October 2022, traditionally the busiest month in the city, the highest rates per night are found

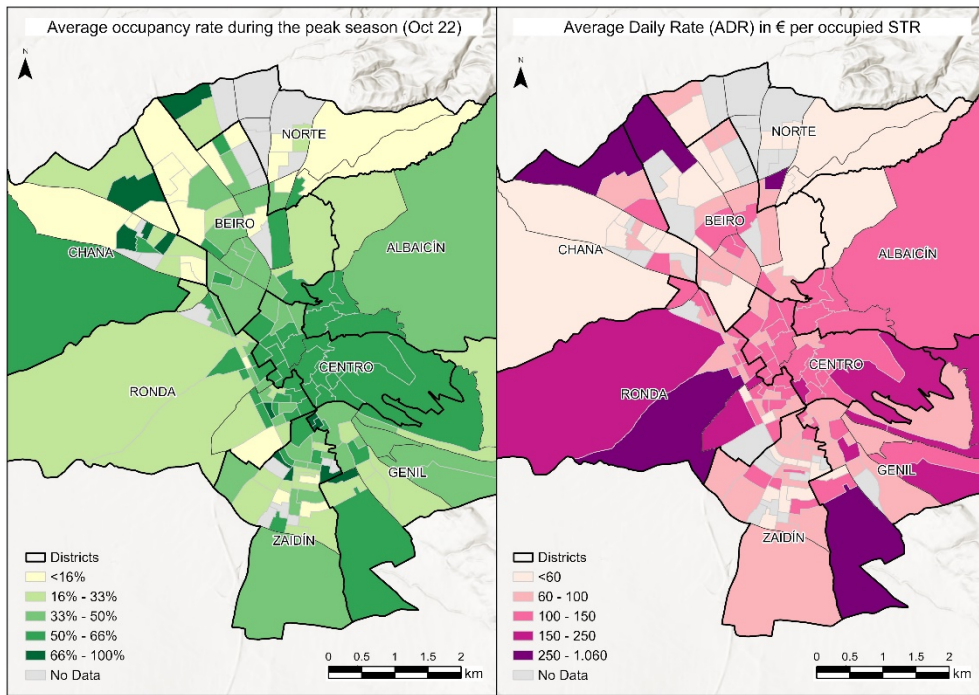


Figure 3: STR characteristics: Average daily rate and occupancy per census track. (Source: Own elaboration with data from AirDNA, October 2022.)

in the Genil district for full accommodation (€180.38/night), one of the districts where there is less supply of STR but with the highest capacity (on average 6.21 beds per STR). The next districts with the highest rates are, in order, Albaicín (€128/night), Centro (€126/night), and Ronda (€119.32/night). The spatial distribution of the ADRs allows us to identify different areas, with the lowest prices in the northern and southern districts, values of around €100–€150/night in the census sections of the Centro and Albaicín districts, and the highest values in peripheral areas of the city, possibly linked to single-family housing typologies.

5 CONCLUSIONS

Granada has experienced a remarkable growth in the supply of accommodation in recent years in which the growth in the supply of STRs stands out. The results obtained from the spatial analysis of STRs are very similar to those described in the literature [14], [15], [21], which suggest that the radius of action of tourist activity is concentrated in the historic city centres and adjacent neighbourhoods. On the other hand, the use of two database sources (ATR and AirDNA) and their relationship with the NSI's 2021 Population and Housing Census, has allowed us to carry out a detailed analysis of the characteristics of the STRs and to contrast whether there is a pronounced shadow economy linked to this activity. As already exposed by Cerezo-Medina et al. [21], the similarity of the number of STRs in the ATR and AirDNA databases suggests that in the city of Granada the volume of STRs in the shadow economy is dynamic and very sensitive to economic, social and regulatory changes, which makes STRs vary over time.

The spatial analysis carried out in Granada indicates a recent upward trend in the occupancy levels of STRs that could continue to increase in the coming years if their activity is not regulated. This type of accommodation represents almost half of the tourist bed spaces and is located, like the rest of the tourist accommodation on offer, mainly in the districts of the Centro and Albaicín districts, where the main tourist resources of the city and the best transport connections are located. The average length of stay is less than 3 days on average, and the average nightly rate in the more central accommodation is not excessively higher than in the more peripheral locations.

The calculated indicators of tourist intensity (beds in any type of accommodation per 1,000 residents) show significantly high values in the neighbourhoods closest to the Alhambra, such as San Matías-Realejo (878 beds per 1,000 inhabitants), Albaicín (745), and Centro-Sagrario (667). Likewise, in these neighbourhoods, a high percentage of STRs concerning total dwellings has been identified, especially in Albaicín, with 35.1%, and San Matías-Realejo, with 20.9%. In both cases, the concentration of STRs is directly linked to the distance to the Alhambra and Generalife heritage complex, but there are also economic factors that explain the concentration of STRs in city centres, for example, the profits from STRs, which in Granada can reach values of around €100-€150/night, are higher than the returns from residential rentals [21].

This data could be used to establish a zoning system for the regulation of STRs in Granada. If we look at the models approved in other Spanish cities such as Barcelona, Madrid or San Sebastian, which have developed explicit zoning in the regulation of STRs, the city could be divided into at least three zones: a first 'saturated' zone including the city centre and the areas of Albaicín and San Matías-Realejo closer to the heritage complex of Alhambra and Generalife, with greater restrictions; a second 'high demand' zone including the rest of Albaicín and San Matías-Realejo, and the areas adjacent to the neighbourhoods bordering Centro, Albaicín and San Matías-Realejo, where supply can be increased with restrictions; and a third ring with the rest of the city with no restrictions on increasing supply.

The central argument for establishing zoning in the regulation of the STRs is to contain the touristification of urban centres and, in this case, also of the Albaicín area, whose functionality is changing with the increase in tourists. This tourist development puts pressure on the housing market, as it means a reduction in the supply of housing for the resident population. It also implies problems of coexistence and nuisance to neighbours. It also favours the commercial transformation of the neighbourhoods affected, as the supply tends to be oriented towards tourist demand. As a final result, displacement processes are accentuated, affecting above all the groups with the least purchasing power. In short, the regulation of STRs is seen as a necessary instrument for the containment of touristification.

Finally, although the regulation of STRs is a priority, it is also considered necessary to balance the tourist offer, in the sense of advocating an equivalent framework for all types of accommodation, the proliferation of which affects the transformation of historic centres in the same way.

ACKNOWLEDGEMENTS

The publication is part of the project PID2021-124428OB-I00, funded by 'MCIN/AEI/10.13039/501100011033/ERDF, EU', where PID2021-124428OB-I00 is the reference that appears in the award resolution; MCIN is the acronym of the Ministry of Science and Innovation; AEI is the acronym of the State Research Agency; 10.13039/501100011033 is the DOI (Digital Object Identifier) of the Agency; and ERDF is the acronym of the European Regional Development Fund



REFERENCES

- [1] Navarro Valverde, F.A. & Capote Lama, A., ¿Overtourism en la ciudad de Granada?: una aproximación a la percepción de turistas, residentes y partidos políticos locales. *Cuadernos Geográficos*, **60**(1), pp. 35–53, 2020. <https://doi.org/10.30827/cuadgeo.v60i1.13717>.
- [2] García-Hernández, M., de la Calle-Vaquero, M. & Yubero, C., Cultural heritage and urban tourism: Historic city centres under pressure. *Sustainability (Switzerland)*, **9**(8), 2017. <https://doi.org/10.3390/su9081346>.
- [3] de la Calle Vaquero, M., Turistificación de centros urbanos: clarificando el debate. *Boletín de La Asociación de Geógrafos Españoles*, **83**, pp. 1–40, 2019.
- [4] Chamusca, P., Rio Fernandes, J., Carvalho, L. & Mendes, T., The role of Airbnb creating a ‘new’-old city centre: Facts, problems and controversies in Porto. *Boletín de la Asociación de Geógrafos Españoles*, **83**, 2820, 2019. <http://doi.org/10.21138/bage.2820>.
- [5] Garay, L., Morales, S. & Wilson, J., Tweeting the right to the city: Digital protest and resistance surrounding the Airbnb effect. *Scandinavian Journal of Hospitality and Tourism*, pp. 1–22, 2020. <https://doi.org/10.1080/15022250.2020.1772867>.
- [6] Milano, C., Overtourism, malestar social y turismofobia. Un debate controvertido. *PASOS. Revista de Turismo y Patrimonio Cultural*, **18**(3), pp. 551–564, 2018. <https://doi.org/10.25145/j.pasos.2018.16.041>.
- [7] Novy, J. & Colomb, C., Urban tourism as a source of contention and social mobilisations: A critical review urban tourism as a source of contention and social. *Tourism Planning and Development*, pp. 1–18, 2019. <https://doi.org/10.1080/21568316.2019.1577293>.
- [8] de la Calle-Vaquero M., García-Hernández, M. & Mendoza de Miguel, S., Urban planning regulations for tourism in the context of overtourism: Applications in historic centres. *Sustainability*, **13**(1), p. 70, 2021. <https://doi.org/10.3390/su13010070>.
- [9] Cassell, M.K. & Deutsch, A.M., Urban challenges and the gig economy: How German cities cope with the rise of Airbnb. *German Politics*, pp. 1–22, 2020. <https://doi.org/10.1080/09644008.2020.1719072>.
- [10] Consejo Social de la Ciudad de Granada, EG2020: Haciendo humano lo urbano. Documento marco: Plan Estratégico de Granada. [https://www.granada.org/ob2.nsf/in/EG2020/\\$file/EG2020_Estrategia_Granada_2020_Haciendo_humano_lo_urbano.pdf](https://www.granada.org/ob2.nsf/in/EG2020/$file/EG2020_Estrategia_Granada_2020_Haciendo_humano_lo_urbano.pdf). Accessed on: 7 Jul. 2024.
- [11] Estadísticas de población y empadronados: Municipio Granada a 1 de enero de 2022. <https://www.granada.org/intranet/idegeogr.nsf/v/estadisticas-pob-2022#:~:text=CIFRAS%20PADR%C3%93N%20MUNICIPAL%20DE%20HABITANTES,de%20los%20registros%20administrativamente%20activos>. Accessed on: 7 Jul. 2024.
- [12] National Statistics Institute, Encuesta de Ocupación Hotelera, 2023. <https://www.ine.es/jaxiT3/Tabla.htm?t=2078>. Accessed on: 2 Jul. 2024.
- [13] Guaita Martínez, J.M., Martín Martín, J.M., Salinas Fernández, J.A. & Ribeiro Soriano, D.E., Tourist accommodation, consumption and platforms. *International Journal of Consumer Studies*, **47**(3), pp. 1011–1022, 2023.
- [14] Navarro-Valverde, F.A., Capote-Lama, A., Barrero-Rescalvo, M. & Díaz-Parra, I., The pain of being a resident in Granada: Analysis of the accommodation offer and residents’ perception. *Urban Dynamics in the Post-Pandemic Period*, eds E. Navarro-Jurado, R. Larrubia Vargas, F. Almeida-García & J.J. Natera Rivas, Springer: Cham, 2023. https://doi.org/10.1007/978-3-031-36017-6_2.



- [15] García Álvarez, D., Análisis espacial del alojamiento ofertado a través de nuevas plataformas de economía colaborativa en la ciudad de Granada. *XXVI Congreso de la Asociación Española de Geografía. Crisis y espacios de oportunidad. Retos para la geografía*, October, 2019.
- [16] Patronato de la Alhambra y Generalife. <https://www.alhambra-patronato.es/notas-prensa/la-alhambra-recibe-y-homenajea-a-su-visitante-numero-un-millon>. Accessed on: 7 Jul. 2024.
- [17] Smith, N., *La nueva frontera urbana. Ciudad revanchista y gentrificación. Traficantes de sueños*, Madrid, 2012.
- [18] de la Calle-Vaquero, M., *La ciudad histórica como destino turístico*, Ariel: Barcelona, 2002
- [19] Vallejo, S., Las medidas de Granada para limitar los pisos turísticos: congela temporalmente las licencias y endurece los requisitos. *Granada Hoy*. https://www.granadahoy.com/granada/Granada-medidas-limite-pisos-turisticos-congelar-licencias-PGOU-requisitos_0_1911409555.html.
- [20] Vallejo, S., Límite a los pisos turísticos: Granada asumirá el decreto de la Junta y niega que la ciudad esté tensionada. *Granada Hoy*. https://www.granadahoy.com/granada/Limite-pisos-turisticos-Granada-decreto-Junta_0_1870013762.html.
- [21] Cerezo-Medina, A., Romero-Padilla, Y., García-López, A., Navarro-Jurado, E., Sortino-Barrionuevo, J.F. & Guevara-Plaza, A., Comparative analysis of short-term rental homes and traditional accommodation in Andalusian tourist cities: Intensity, density, and potential expansion areas. *Current Issues in Tourism*, **25**(11), pp. 1782–1797, 2021. <https://doi.org/10.1080/13683500.2021.1983522>.

