TABLE 3

DISTRIBUTION OF MORPHOLOGIES OF 292 ISOLATED NELGS

Morphology type	Number	Fraction %
S0	9	3.1
S0a	4	1.4
Sa	55	18.8
Sab	68	23.3
Sb	83	28.4
Sc	53	18.2
Sd	17	5.8
Sm	3	1.0

where $M_{\odot K} = 3.28$ is the absolute magnitude of the Sun in the K band (Binney & Merrifield 1998). From the uncertainties in the fluxes (Jarrett et al. 2000), a mean uncertainty of 6% is estimated for our K luminosities.

In Figure 4 we compare the distributions of the 2MASS absolute magnitudes in K and heliocentric radial velocities, as found in our subsample of 292 isolated NELGs and in the entire 2MIG catalogue. The distribution for the 2MIG catalogue is typical of a flux limited survey. The galaxies of our subsample are randomly distributed, suggesting they form a statistically fair sample of all the isolated galaxies in the 2MIG catalogue.

3. ANALYSIS

3.1. *Activity type vs. morphology*

We present the fractions of morphology types in our sample of 292 isolated NELGs in Table 3. The majority (70.5%) of these galaxies are classified as intermediate spirals (Sa-Sab-Sb). In Figure 5 we show how the distribution of activity type varies in the different morphology classes: AGNs and TOs are mostly found in early-type galaxies (S0-Sa), while the proportion of SFGs gradually increases in later types (Sab-Sm). This result is not new, but confirms the common view about AGNs in the field: they are mostly found in early-type spiral galaxies (e.g., Melnick, Terlevich, & Moles 1986; Osterbrock 1989; Blandford, Netzer, & Woltjer 1990).

In Table 4 we give our estimated masses for the bulges, $M_{\rm Bulge}$, as determined using the velocity dispersions, $\sigma_\star$, and applying the virial theorem. The box-whisker plots for the bulge masses of the galaxies separated by activity type are presented in Figure 6a. The median values are reported in Table 5. AGNs and TOs possess more massive bulges than SFGs. The trends observed for the AGNs and TOs are confirmed using a non-parametric statistical test (Kruskall-Wallis with Dunn's multiple comparison tests). The results of these tests are presented in Table A1 of the Appendix. The tests find the medians in the three samples to be significantly different at a level of confidence of 99%.

In Figure 6b we compare the bulge mass of galaxies with different morphologies. We also observe a significant difference, the bulge mass being larger in

TABLE 4

EXAMPLES OF MASSES OF ISOLATED NELGS†

Identification in SDSS	$\log(M)(M_\odot)$		
	$M_{\rm Bulge}$	$M_{\rm BH}$	M_B
SDSS J105809.84−004628.8	9.04		10.71
SDSS J113903.33−001221.6	9.40	6.41	10.55
SDSS J135807.05−002332.9	9.17		11.04
SDSS J142223.76−002315.5	8.39		10.17
SDSS J150654.85+001110.8	9.99	7.06	11.12
SDSS J113423.32−023145.5	9.69	6.74	11.22
SDSS J115425.04−021910.3	8.52		9.86
SDSS J122353.98−032634.4	8.77	5.70	10.28
SDSS J124428.12−030018.8	9.33	6.33	10.96
SDSS J170128.21+634128.0	9.03		10.77

†Full table available in electronic form at `http://www.astroscu.unam.mx/rmaa/RMxAA..47-2/RMxAA..47-2_rcoziol-tables.zip/`.

TABLE 5

MEDIAN MASSES AND CONCENTRATION INDICES

	$\log(M)(M_\odot)$			CI
	$M_{\rm Bulge}$	M_K	M_B	
AGN	9.64	10.90	10.92	2.41
TO	9.41	10.85	10.78	2.21
SFG	9.10	10.66	10.56	2.11
S0/S0a	9.73	10.98	10.94	3.21
Sa	9.72	10.91	11.00	2.87
Sab	9.46	10.82	10.78	2.62
Sb	9.39	10.94	10.77	2.34
Sc	9.10	10.66	10.58	2.12
Sd	8.44	9.86	9.66	2.07